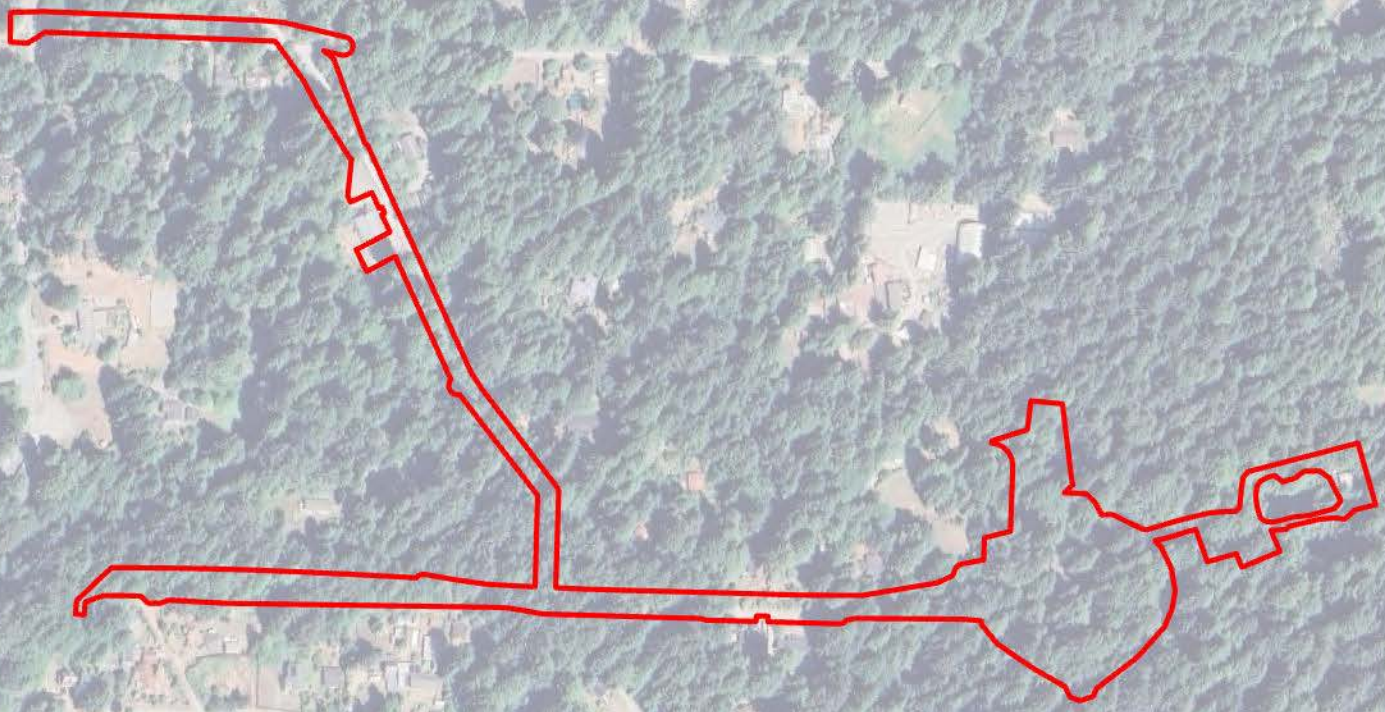
# PROPOSED MITIGATED NEGATIVE DECLARATION and INITIAL STUDY

## Westhaven Community Services District Disinfection Byproduct Reduction Project



*Prepared for:*

**Westhaven Community Services District**

**August 2024**

32-69

ENPLAN

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Redding, CA 96002

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*Two-Sided Printing*

# PROPOSED MITIGATED NEGATIVE DECLARATION

| | |
|---|---|
| **LEAD AGENCY AND PROJECT PROPONENT:** | **Westhaven Community Services District** |
| **PROJECT NAME:** | **Disinfection Byproduct Reduction Project** |
| **PROJECT SUMMARY:** | The project entails improvements to the Westhaven Community Services District's (District) water system. Waterlines and electrical conduit would be installed from the 4th Avenue Well to the Water Treatment Plant (WTP) site. Fire hydrants would be installed and water meters and meter boxes adjacent to 4th Avenue would be replaced.<br><br>Improvements at the WTP site include construction of a new WTP building, installation of a septic tank and leach field, installation of two propane tanks, an emergency back-up generator, a Battery Energy Storage System, and a hydropneumatic tank, installation of drainage improvements, improvements to the existing access driveway, and installation of a ~200,000-gallon glass-fused bolted steel water tank with an aluminum domed roof. Sand and gravel media in both slow sand filters would be replaced. A new 4-inch slow sand filter bypass pipe would be installed in the access road between the two existing ponds. Photovoltaic (PV) solar panels would be installed on the roof of the WTP building. A SCADA system would be installed. A "Humboldt crossing" on Two Creek would be removed.<br><br>480V/3-phase power would be extended to serve the new treatment facilities; this would entail replacing existing Pacific Gas and Electric (PG&E) power poles, overhead powerlines, and appurtenant facilities, and extending an overhead electrical line to a new power pole at the WTP. *See Section 3.0, Project Description, in the Initial Study.* |
| **LOCATION:** | The project is located in the unincorporated community of Westhaven in Humboldt County. Water system improvements would occur at the District's 4th Avenue Well on 4th Avenue, generally west of Transit Avenue, at the District's WTP site at the eastern end of 4th Avenue, and in the 4th Avenue road right-of-way (ROW) between the two facilities. PG&E electrical improvements would occur within the road ROWs of 4th Avenue, Railroad Avenue, and 8th Avenue, and within public utility easements. Temporary staging of construction equipment and materials would occur on District property and within the Westhaven Community Church parking lot, located at 675 Railroad Avenue. *See **Figure 1** in the Initial Study.* |

**Findings/Determination**

As documented in the Initial Study, project implementation would result in temporarily increased air emissions, possible impacts on special-status wildlife species, disturbance of nesting birds (if present), loss of trees, the introduction and spread of noxious weeds during construction, possible impacts on wetlands and/or other waters of the U.S./State, impacts on cultural resources and tribal cultural resources (if present), impacts on paleontological resources (if present), and temporarily increased noise and vibration 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. Implementation of the mitigation measures also ensures that the project does not conflict with applicable goals, policies, and standards of the Humboldt County General Plan. Because the Westhaven Community Services District 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.

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**Final Mitigated Negative Declaration approved by the Westhaven Community Services District on _____, 2024, by Resolution _____.**

# INITIAL STUDY

## WESTHAVEN COMMUNITY SERVICES DISTRICT

## DISINFECTION BYPRODUCT REDUCTION PROJECT


**LEAD AGENCY:**

**WESTHAVEN COMMUNITY SERVICES DISTRICT**
P.O. Box 2015
Trinidad, CA 95570

**PREPARED BY:**

ENPLAN

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Redding, CA 96002
**530.221.0440**


**August 2024**

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# SECTION 1.0 INTRODUCTION

## 1.1 PROJECT SUMMARY

| | |
|---|---|
| **Project Title:** | **Disinfection Byproduct Reduction Project** |
| **Lead Agency Name and Address:** | **Westhaven Community Services District**<br>P.O. Box 2015<br>Trinidad, CA 95570 |
| **Contact Person and Phone Number:** | **Paul Rosenblatt, General Manager**<br>prosenblatt.wcsd@suddenlinkmail.com<br>707.677.0798 |
| **Environmental Consultant:** | **ENPLAN**<br>3179 Bechelli Ln., Ste. 100<br>Redding, CA 96002 |

The project includes improvements to the Westhaven Community Services District's (District's) public water system that are required to improve the water treatment process, replace aging and undersized infrastructure, provide additional water storage, and improve fire flows to ensure a reliable water supply in the District's service area.

Waterlines and electrical conduit would be installed from the 4th Avenue Well to the Water Treatment Plant (WTP) site. Two fire hydrants would be installed on 4th Avenue. Six existing water meters and meter boxes adjacent to 4th Avenue would be replaced.

During the site selection process for the WTP improvements, the District's entire property was evaluated. The proposed site was selected for several reasons: a) proximity to the existing water tank site; b) the required head pressure from the springs was developed to its fullest potential and thereby reduced the required pumping facilities and operation costs; c) avoidance of designated wetlands; d) avoidance of impacts to Two Creek; and e) the least amount of tree removal.

Improvements at the WTP site include construction of a new WTP building, installation of a septic tank and leach field, installation of two propane tanks, an emergency back-up generator, a Battery Energy Storage System, and a hydropneumatic tank, installation of drainage improvements, improvements to the existing access driveway, and installation of a ~200,000-gallon glass-fused bolted steel water tank with an aluminum domed roof. Sand and gravel media in both slow sand filters would be replaced. A new 4-inch slow sand filter bypass pipe would be installed in the access road between the two existing ponds. Photovoltaic (PV) solar panels would be installed on the roof of the WTP building. A SCADA system would be installed. A "Humboldt crossing" on Two Creek would be removed.

Improvements at the WTP require conversion of a single-phase power alignment to 480V/3-phase as well as extension of powerline to the new WTP facilities. This would entail replacing existing Pacific Gas and Electric (PG&E) power poles, overhead powerlines, and appurtenant facilities, and extending an overhead electrical line to a new power pole at the WTP.

Section 3.2 provides a detailed description of the proposed improvements.

## 1.2 PURPOSE OF STUDY

The Westhaven Community Services District (District), as Lead Agency, has prepared this Initial Study (IS) to provide the general public and interested public agencies with information about the potential environmental impacts of its Disinfection Byproduct Reduction Project (Project). Details about the proposed project are included in Section 3.0 (Project Description) of this IS.

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

## 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:** Contain information to supplement Section 4.0.

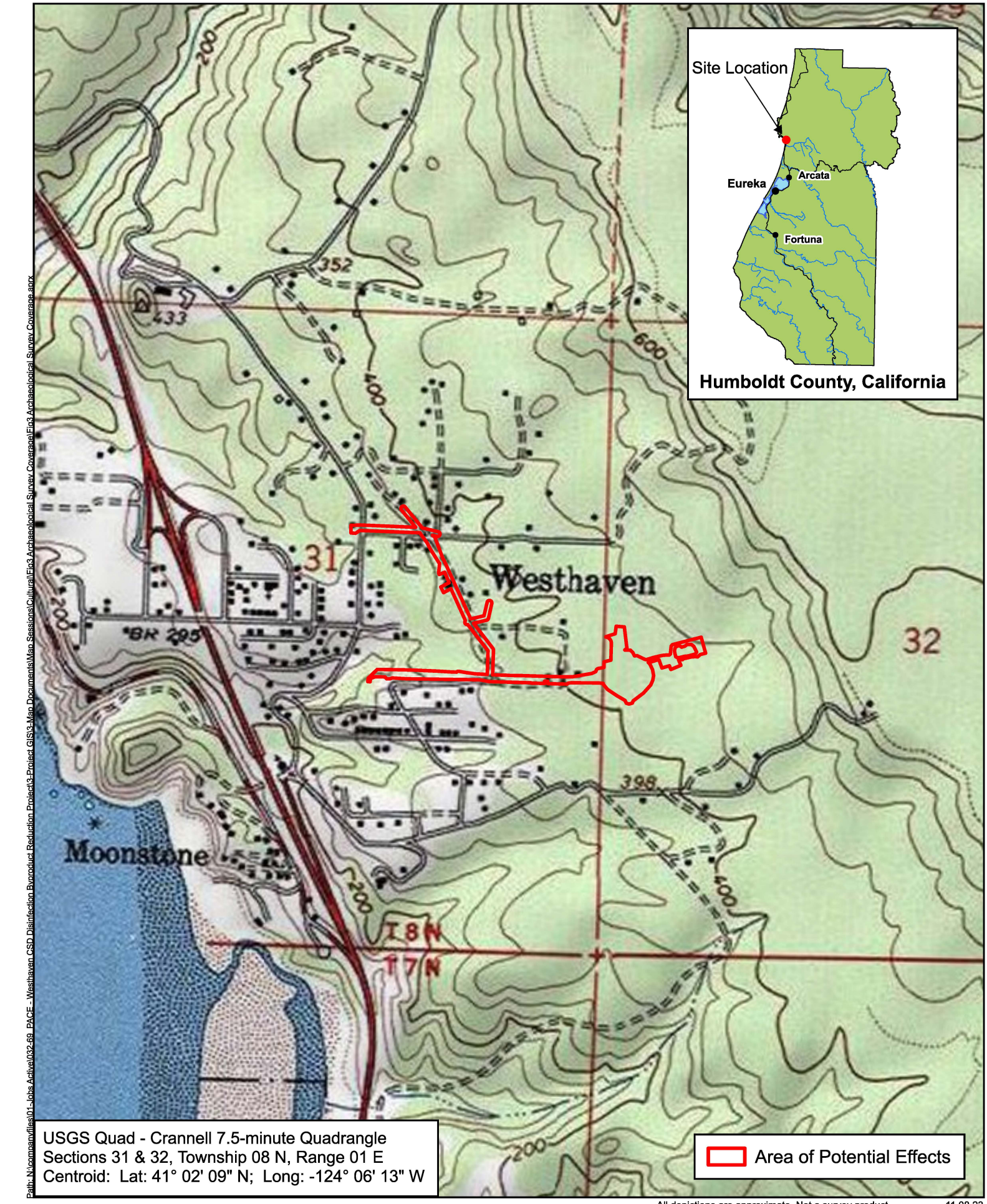
## 1.5 PROJECT LOCATION

As shown in **Figure 1,** Project Location and Vicinity, the proposed project is located in the unincorporated community of Westhaven in Humboldt County, in Sections 31 and 32 of Township 8 North, Range 1 East, as depicted in the U.S. Geological Survey's (USGS) Crannell 7.5-minute quadrangle. Latitude 41°02'09'' N; Longitude -124°06'13'' W (centroid). As shown in **Figure 2,** water system improvements would occur at the District's 4th Avenue Well, located on 4th Avenue, generally west of Transit Avenue (Assessor's Parcel Number [APN] 514-133-001), at the District's Water Treatment Plant (WTP) site, located at the eastern end of 4th Avenue (APN 513-181-014), and in the 4th Avenue road right-of-way (ROW) between the two facilities. As shown in **Figures 13a and 13b**, PG&E improvements would occur within the road ROWs of 4th Avenue, Railroad Avenue, and 8th Avenue, and within public utility easements on private property.

Temporary staging of construction equipment and materials would occur within the affected road ROW, on District property, and within the Westhaven Community Church parking lot, located at 675 Railroad Avenue (APN 514-021-006 and 514-015-007).

## 1.6 ENVIRONMENTAL SETTING

| | |
|---|---|
| **General Plan Designation:** | Public Lands (P), Residential Estates (RE 1-5), Rural Residential (RR), Rural Village (RV) |
| **Zoning:** | 4th Avenue Road Corridor: Single-Family Residential – Combining Districts: Manufactured Home/Streams and Riparian Corridors Protection (RS-X-M/R). Water Treatment Plant Site: Unclassified (U), and Residential Agriculture – 2.5-acre minimum lot size (RA-2.5). |
| **Surrounding Land Uses:** | Lands adjacent to the WTP site and 4th Avenue, Railroad Avenue, and 8th Avenue corridors are developed with single-family residences; surrounding lands are forested open space. |
| **Topography:** | Elevations in the study area range between ~320 and ~460 feet above sea level. Topography in the area slopes gently to the west. |
| **Plant Communities/Wildlife Habitats:** | The dominant natural community type at the WTP site is a redwood forest community with understory predominately composed of western sword fern. Non-riparian red alder forest makes up the northeastern portion of the WTP site. Riverine habitat includes Two Creek and other unnamed streams in the project site.<br><br>The urban community includes unpaved road corridors and existing structures in the study area. Urban vegetation is primarily located along the road margins and surrounding existing structures. |
| **Climate:** | The study area is characterized by a coastal climate with warm, dry, foggy summers and cool, wet winters. The average annual temperature is about 52 degrees Fahrenheit (°F). Monthly mean temperatures range from a high of 70° F in September to a low of 37° F in January. Precipitation is about 67 inches per year. |




All depictions are approximate. Not a survey product. 11.08.23

0 1,000 Feet

Figure 1

# Project Location and Vicinity

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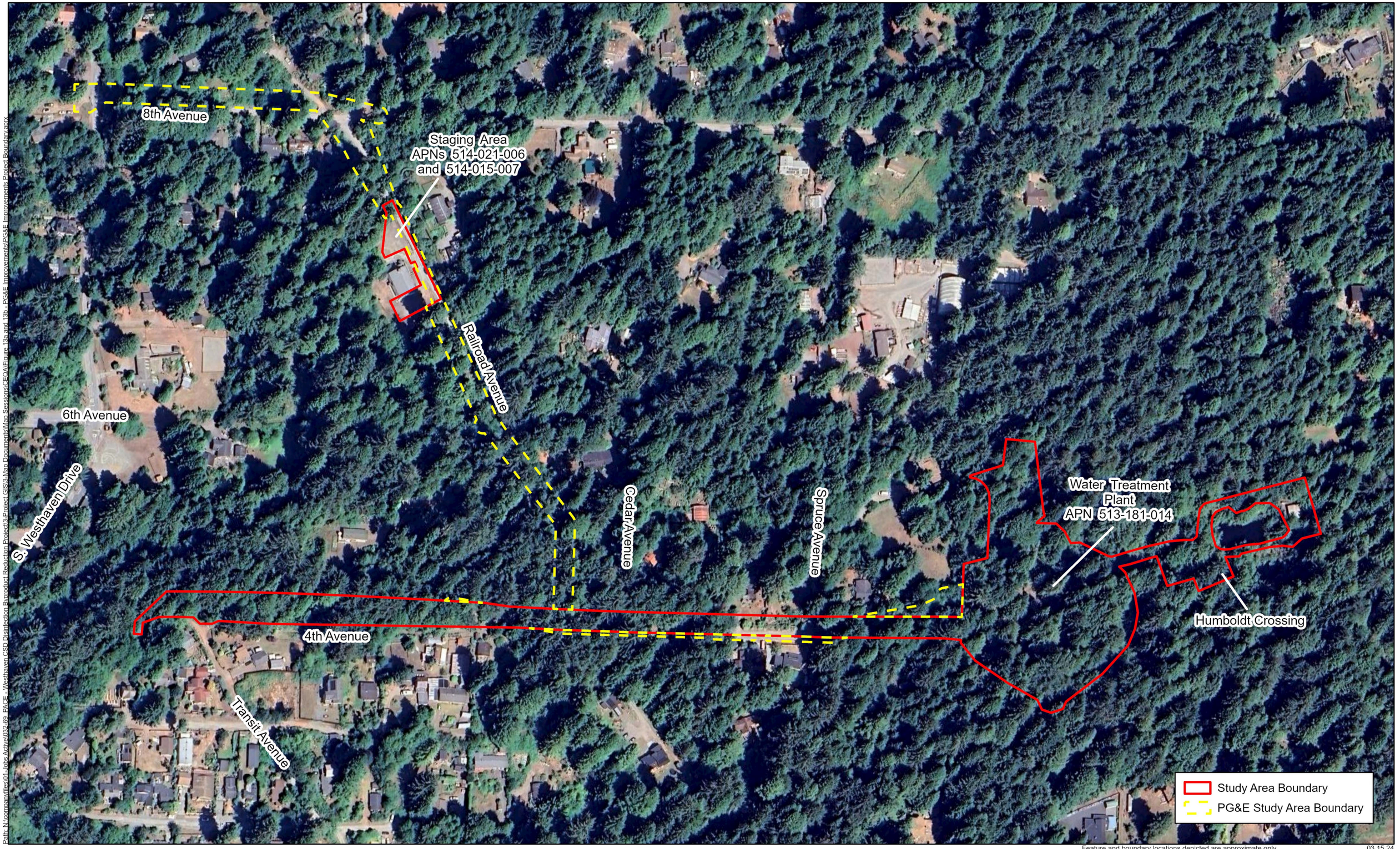


Path: N:\compandfiles\01 Jobs Active\4269_PG&E - Westhaven CSD Disinfection Byproduct Reduction Project\3 Project GIS\3.4 Maps\Map Documents\Map Sessions\CEQA\Figure 1-3a and 1-3b - PG&E Improvements\PG&E Improvements Project Boundary.aprx

Feet
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Figure 2
**Project Overview**

Feature and boundary locations depicted are approximate only.
This is not a survey product.

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## 1.7 PERMITS AND APPROVALS

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

**Westhaven Community Services District:**

- 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.

**Humboldt County:**

- Permits for the emergency back-up generators.
- Coastal Development Permit (CDP). As required by the Humboldt County Local Coastal Program – Trinidad Area Plan, the portion of the project within the Coastal Zone boundaries is subject to approval of a CDP. A CDP was issued on May 7, 2021, and expired one year after all appeal periods lapsed. The District is in the process of renewing the CDP.
- General Plan Conformance Determination, finding that the project complies with the Humboldt County General Plan.

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

- Coverage under the National Pollutant Discharge Elimination System (NPDES) permit for *Discharges of Storm Water Runoff Associated with Construction Activity* (currently Order WQ 2022-0057-DWQ, NPDES No. CAS000002). The permitting process requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must include BMPs to reduce pollutants and any additional controls necessary to meet water quality standards.
- Issuance of a Section 401 Water Quality Certification, Waste Discharge Requirements (WDRs), or waiver of a WDR.
- If construction dewatering activities result in the direct discharge of relatively pollutant-free wastewater to waters of the U.S., coverage under NCRWQCB General Order R1-2020-0006 (NPDES No. CAG024902) *Waste Discharge Requirements for Low Threat Discharges to Surface Waters in the North Coast Region*. This Order includes specific requirements for monitoring, reporting, and implementing BMPs for construction dewatering activities.

**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 Department Fish and Wildlife (CDFW):**

- Issuance of a Section 1600 Lake or Streambed Alteration Agreement.

**California Department of Forestry and Fire Protection:**

- Issuance of a Public Agency, Public and Private Utility Right-of-Way Exemption; Timberland Conversion Permit (TCP); and/or approval of a Timber Harvest Plan (THP) for tree removal on non-federal lands.

**U.S. Army Corps of Engineers (USACE):**

- Issuance of a Section 404 Permit under the Federal Clean Water Act.

## 1.8 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 must 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 the lead agency, in writing, 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.

On February 13, 2019, Westhaven Community Services District received a written request from the Karuk Tribe to be notified of proposed projects in their geographical area; according to the map included in the letter from the Karuk Tribe, the project site is not located within the Tribe's geographic area. Therefore, consultation pursuant to PRC §21084.2 is not required for the proposed project. As discussed in Section 4.5, ENPLAN contacted Native American tribes that were identified by the Native American Heritage Commission (NAHC) on August 20, 2021, with a request to provide comment on the proposed project. No responses were received from any tribal representative.

## 1.9 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact requiring mitigation to bring it to a less-than-significant level. 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 | ☐ Wildfires |
| ☒ Geology and Soils | ☐ Population and Housing | ☒ Mandatory Findings of Significance |

## 1.10 PROPOSED MITIGATION MEASURES

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

### AGRICULTURE AND FORESTRY RESOURCES

Implementation of **MM 4.4.4.**

### AIR QUALITY

**MM 4.3.1** The following measures shall be implemented throughout construction:

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

b. All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance.

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

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

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

f. 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. This provision is enforced by local law enforcement agencies.

g. 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.

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

**BIOLOGICAL RESOURCES**

**MM 4.4.1** In order to avoid/minimize potential impacts on special-status species and their habitats associated with Two Creek, the following measures shall be implemented throughout construction:

a. No earth-disturbing activities shall occur in the winter except during extended dry periods and where saturated soil conditions do not exist.

b. No trees shall be removed within the channel of Two Creek.

c. Trees shall be felled away from Two Creek where feasible.

**MM 4.4.2 Conduct Pre-Construction Surveys for Special-Status Aquatic Species**

Prior to the start of earth-disturbing activities within 50 feet of the Humboldt crossing work area, a qualified biologist shall conduct a survey for special-status species that could be present in the area, including the northern red-legged frog (NRLF), the Pacific tailed frog, and southern torrent salamander.

Pre-construction surveys shall be conducted on each day that work occurs in this area. The survey shall include an evaluation of all portions of the work area and an appropriate upland buffer. Should eggs, juveniles, or adults of the NRLF, Pacific tailed frog, or southern torrent salamander be observed during the surveys or by construction personnel at any time, all work shall be stopped in the immediate vicinity until a qualified biologist can relocate the individuals or egg masses to a suitable habitat upstream or downstream of the work area.

**MM 4.4.3 Conduct Worker Environmental Awareness Program**

Prior to commencement of any earth disturbance (e.g., clearing, grading, trenching, etc.), all contractors, work crews, and any onsite personnel shall receive training from a qualified biologist regarding protective measures for special-status animal species and sensitive habitats that could exist in the project area. If new personnel are added to the project, the Westhaven Community Services District shall ensure that they receive the mandatory training before starting work. At a minimum, the training shall include the following:

a. A review of the special-status species that could occur in the project study area, the life history and habitat requirements for each species, the locations where the species could occur, the laws and regulations that protect these species, procedures to be

implemented in the event that these species are encountered during construction, and the consequences of noncompliance with those laws and regulations.

b. A review of wetlands and other waters of the U.S. and State that occur in the study area and the location of the sensitive natural communities.

c. A review of applicable mitigation measures, standard construction measures, best management practices, and resource-agency permit conditions that apply to the protection of special-status species and sensitive habitats.

**MM 4.4.4 Mitigate Impacts to Sensitive Natural Communities**

To mitigate the loss of redwood forest, the Westhaven Community Services District (District) shall implement one of the following measures:

a. **Option 1**: The District shall acquire a minimum of two acres (2:1 ratio) of redwood forest in the Luffenholtz Creek-Frontal Pacific Ocean watershed and record deed restrictions on the property to ensure that the property remains in an open space condition in perpetuity. The deed restrictions shall be recorded in the office of the Humboldt County Clerk-Recorder prior to completion of the project. The restrictions shall include, but not be limited to, the following provisions:

    i. With limited exceptions described in (ii) below, the land shall not be developed with residential, commercial, industrial, or other structures/uses that could significantly impair or interfere with the Conservation Values of the property. Conservation Values of the property include significant forest, watershed, and open space opportunities for public education and recreation and other fish and wildlife habitat resources, the preservation and restoration of which is recognized by the State of California and the people of Humboldt County as providing a public benefit.

    ii. Allowable uses of the property include public trail construction and public access amenities; educational and scientific purposes; fire fuel reduction activities in accordance with local fire regulations or as directed by the local fire authority; maintenance of existing overhead and underground utility facilities; maintenance and management tasks such as weed removal and trash pick-up; and habitat restoration activities, provided that no mature, healthy trees are removed except solely to control or prevent hazards, disease, or wildfire. The application of herbicides, pesticides, defoliants, or chemical fertilizers is prohibited.

    iii. The District shall be responsible for funding and completing maintenance activities and for ensuring compliance with the restrictions.

    iv. The deed restrictions shall run with the land and bind any successors and assigns in interest.

b. **Option 2:** The District shall fund the purchase of a conservation easement to be conveyed to/held by a third-party conservation-oriented entity as defined by California Civil Code §815.3(a). The holder of the conservation easement shall be responsible for ensuring the long-term management and maintenance of the protected lands. The conservation easement shall be recorded in the office of the Humboldt County Clerk-Recorder prior to completion of the project. The conservation easement shall be subject to the following provisions:

    i. The conservation easement shall cover a minimum of two acres (2:1 ratio) of redwood forest if located in the Luffenholtz Creek-Frontal Pacific Ocean watershed or three acres (3:1 ratio) of redwood forest if located outside of the Luffenholtz Creek-Frontal Pacific Ocean watershed in Humboldt County.

    ii. In support of the conservation easement, a detailed management plan shall be developed and implemented by the holder of the conservation easement to provide for the long-term management and maintenance of the protected lands.

Establishment of an endowment to fund the management and maintenance activities may be appropriate.

iii. The management plan shall address allowable land uses and intensities of such use, provide for periodic inspection of the protected lands, address the establishment and maintenance of protective measures such as fencing, identify maintenance and management tasks such as weed removal and trash pick-up, and provide for remediation of the effects of unauthorized activities.

iv. The conservation easement shall run with the land and bind any successors and assigns in interest.

c. **Option 3:** The District shall contribute an appropriate compensation fee to a California Department of Fish and Wildlife (CDFW)-approved redwood conservation fund. The fee shall be sufficient to protect a minimum of three acres (3:1 ratio) of redwood forest in Humboldt County.

**MM 4.4.5 Avoid Impacts on Special-Status Birds and Nesting Birds**

In order to avoid impacts to special-status birds protected under the California Endangered Species Act (CESA) and nesting migratory birds and/or 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 through 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. The survey shall consider 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 to the CDFW 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, the Westhaven Community Services District shall consult with the USFWS and CDFW regarding appropriate action to comply with the CESA, Migratory Bird Treaty Act and California Fish and Game Code §3503 and §3503.5. 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 4.4.6 Avoid/Minimize Introduction and Spread of Noxious Weeds**

The potential for introduction and spread of noxious weeds shall 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.
- Requiring the construction contractor to thoroughly inspect and clean all construction equipment (e.g., excavators, bulldozers, backhoes, dump trucks, etc.) at a commercial wash facility prior to entering and upon leaving the job 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.

**MM 4.4.7 Minimize Effects to Wetlands**

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 wetlands and other waters designated for avoidance. The marker/flag locations shall be determined by a qualified biologist in consultation with the project engineer and the Westhaven Community Services District. No construction activities (e.g., clearing, grading, trenching, etc.), including 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 4.4.8 Avoid Inadvertent Entrapment of Wildlife**

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 RESOURCES

**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 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 District 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** 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, Westhaven Community Services 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 this section.

## 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 Westhaven CSD District Manager 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 equipment (generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses.

**MM 4.13.4** Emergency standby generators, building mechanical equipment, and other noise-generating stationary sources shall be designed to ensure that operational noise levels at nearby sensitive receptors do not exceed applicable Humboldt County noise standards. Noise attenuation shall be implemented if determined necessary by the project engineer. Noise attenuation may include, but not be limited to, installing equipment in an enclosure that provides adequate noise attenuation, selecting low noise-generating equipment, and use of sound-rated doors, windows, and vents.

## 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:

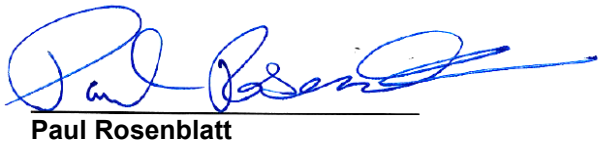
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ **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.



**Paul Rosenblatt**
General Manager

8/9/2024
Date

# SECTION 2.0 CEQA DETERMINATION

On the basis of this initial evaluation:

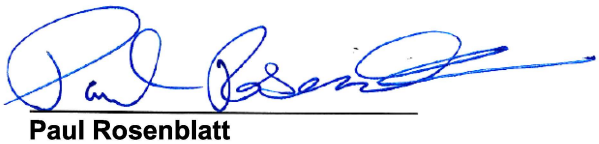
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ **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.



8/9/2024

**Paul Rosenblatt**
General Manager

Date

# SECTION 3.0 PROJECT DESCRIPTION

## 3.1 PROJECT BACKGROUND, NEED, AND OBJECTIVES

The Westhaven Community Services District (District) owns and operates Small Water System No. CA1210024 in the unincorporated community of Westhaven in Humboldt County. The water system was originally constructed in 1933 and was operated by a series of private water companies. The Westhaven Mutual Water Company (WMWC) was formed in 1968; at that time, the system was comprised of an earthen reservoir fed by a small stream known locally as Two Creek, and a very rudimentary distribution system.

Between 1968 and 1974, WMWC sold 186 shares in the company, each share entitling one water service connection, with water promised to 12 additional "idle" shares. The WMWC system was operated without filtration, adequate disinfection, or any facility for storage of treated water. Beginning in 1978, the WMWC came under increasing pressure from the State to construct water treatment and storage facilities to provide water that met federal and State drinking water standards. The District was formed on October 27, 1987, and assumed ownership and operation of all of WMWC's water facilities.

According to the District's Municipal Services Review/Sphere of Influence update (MSR/SOI) adopted by the Humboldt Local Agency Formation Commission on May 19, 2021[1], the District's service area boundary encompasses ~0.6 square miles and the population within the District boundaries was estimated at 517 in 2020. In 2020, the District had 232 connections consisting of 229 single-family residences and three non-residential uses (a church, Center for the Arts, and Volunteer Fire Department Community Hall).

There are currently ~70 homes within the service area boundary that are not currently served by the District; due to a lack of capacity in the water system, there is a moratorium on additional water connections. There are also ~150 undeveloped parcels in the District's service area that are likely unable to support an onsite sewage disposal system due to inadequate size and/or location, and these parcels are likely not developable at this time.

### Existing Water Supply and System

The District's water supply is a combination of surface water and groundwater. In 2019, 63 percent of the water supply was from surface water and the remaining 37 percent was from groundwater.

Groundwater from a 100-foot deep well on 4th Avenue west of Transit Avenue is pumped to an on-site chlorination building where it is treated through a calcite tank to raise the pH and then disinfected using sodium hypochlorite.

The 4th Avenue well has slightly better water quality than that obtained from surface water sources. Groundwater is piped directly into the distribution system; therefore, it is not effectively blended with the surface water to reduce disinfection byproducts (DBPs) throughout the distribution system.

*4th Avenue Well*

[1] Humboldt Local Agency Formation Commission, *Westhaven Community Services District Municipal Services Review and Sphere of Influence Update. May 19, 2021.* https://humboldtlafco.org/wp-content/uploads/Westhaven-MSR_Adopted-05-19-2021.pdf

*Existing Glass-Fused Bolted Steel Tank*

Surface water is obtained from three spring-fed tributaries of Two Creek. Surface water is collected through three water diversion collectors located east of the WTP site. Raw water from the three collectors is fed by gravity flow through a distribution box to two slow sand filters run in parallel. After filtration, water is disinfected inline using sodium hypochlorite.

Treated water is stored in two storage tanks: a ~87,000-gallon glass-fused bolted steel tank (Tank 1) that was constructed in September 2017, and a ~100,000-gallon in-ground concrete tank (Tank 2) that was constructed in 1984 (a tank poly liner was added in 1991 and a metal roof added in 2017). Stored water is distributed to the District's pressure zones by gravity and through use of the High-Pressure Zone (HPZ) Pump Station that is located on the WTP property.

*Existing In-Ground Concrete Tank*

There are three pressure zones in the District's service area (Low, Main, and High). The Main Pressure Zone is set by the water surface elevation in Tank 2 and serves 161 residences. The Low Pressure Zone takes water from the Main Pressure Zone through a pressure reducing valve to serve the Moonstone Restaurant located on the west side of Highway 101.

The High Pressure Zone (HPZ) contains no water storage and relies on operation of the HPZ Pump Station, located at the WTP. The HPZ pump station pumps water from Tank 2 to serve 70 residences. The HPZ Pump Station includes two electric pumps and one manually started gasoline-fired emergency pump in case of power failure. Unscheduled power failures cause some of the HPZ residences to lose pressure until the emergency pump is manually started.

In addition, the lab, chemical storage, and the sodium hypochlorite dosing station are located inside the HPZ Pump Station building. There is not adequate space to maintain safe, code-compliant clearance in front of the power panels. In addition, sodium hypochlorite off gases and contributes to a corrosive environment for all power equipment, especially sensitive electrical equipment. This shortens the life span of the equipment and increases operating costs. A new HPZ Pump Station with an emergency back-up generator is needed. In addition, proper storage of sodium hypochlorite isolated from electrical equipment necessitates a dedicated room for storage, a day tank, and dosing pumps.

**Project Need and Objectives**

According to the Engineering Report prepared for the proposed project by PACE Engineering in April 2023, disinfection byproduct precursors (Total Organic Carbon [TOC]) are found in both the surface and groundwater sources. The District's surface water quality drastically changes between dry weather conditions (summer) and wet weather conditions (winter), with an increase in TOC concentrations during winter. When the TOCs in water combine with disinfectants such as sodium hypochlorite, Disinfection Byproducts (DBPs) are formed.

On December 12, 2017, the State Water Resources Control Board (SWRCB) issued a Compliance Order (No. 01-01-17R-004) to the District due to exceedance of the MCL for DBPs in treated surface water. According to the SWRCB, between 2006 and 2020, the District exceeded the total trihalomethane (TTHM) MCL 23 times and exceeded the haloacetic acid (HAA5) MCL 46 times. The order requires the District to provide additional treatment of the drinking water and/or blend the water with additional sources to produce water with DBPs under MCLs.

Additionally, much of the District's distribution system is undersized and more than 40 years old. Between 2010 to 2016, the average amount of water lost to leaks in the distribution system was 35 percent of the total water produced. In 2016, pipes with the worst leaks were replaced, resulting in a significant reduction in water loss (10 to 12 percent of the total water produced in 2018 and 2019).

As noted above, the District's current water storage capacity in the existing tanks is ~187,000 gallons. The mismatched water levels of Tanks 1 and 2 preclude the use of the bottom 6 feet of Tank 1, which cannot flow into Tank 2 when the tanks are operated in series, resulting in an effective current storage capacity of ~173,300 gallons.

The District needs an additional ~200,000-gallon tank at the same hydraulic grade line as Tank 1. With a new tank in place, the District can then repurpose the existing Tank 2 into a backwash/sludge containment tank. Thickened sludge would be removed from the converted tank and hauled to the City of Eureka Wastewater Treatment Plant for disposal.

The purpose of the proposed project is to replace aging and undersized infrastructure, provide additional water storage, improve fire flows, improve system efficiency, and ensure a safe and reliable water supply in the District's service area.

For purposes of this Initial Study, "study area" and "project site" shall mean the project footprint, and includes access roads, staging areas, and areas in which improvements would occur.

## 3.2 PROJECT COMPONENTS/PHYSICAL IMPROVEMENTS

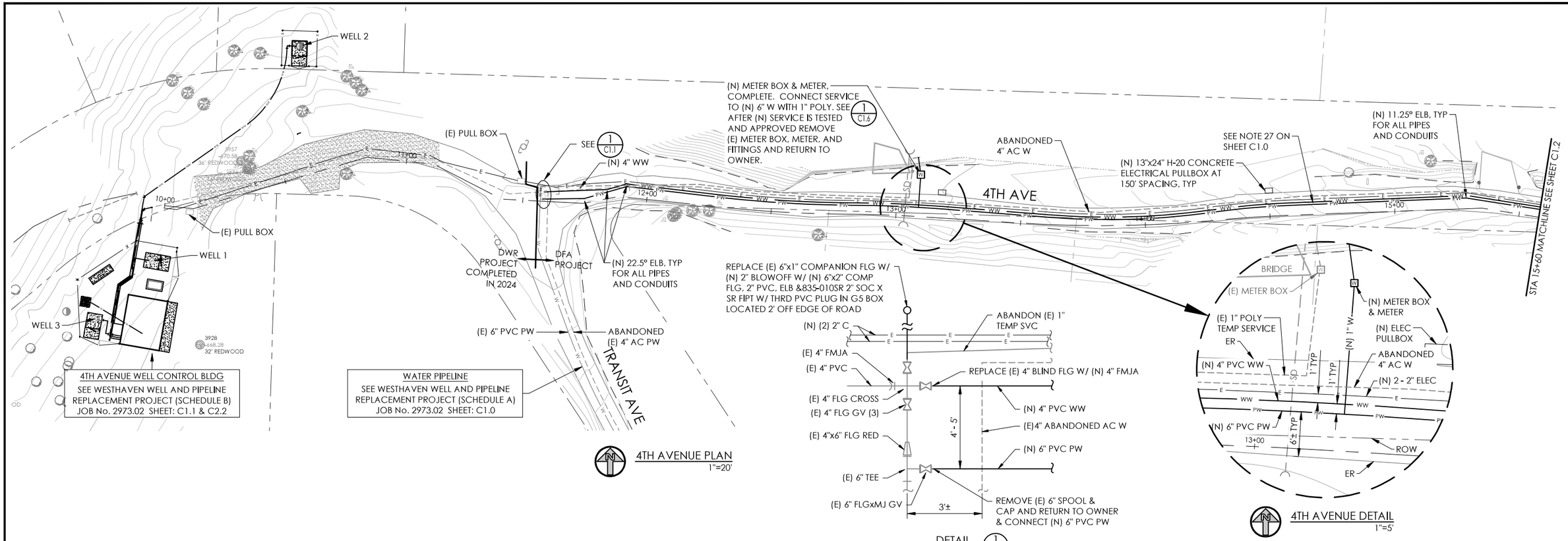
This section describes the proposed improvements that are the subject of this Initial Study. The identified improvements are based on 90 percent plans, and minor modifications to the project may be made during completion of the final improvement plans; the study area for the project was expanded to allow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

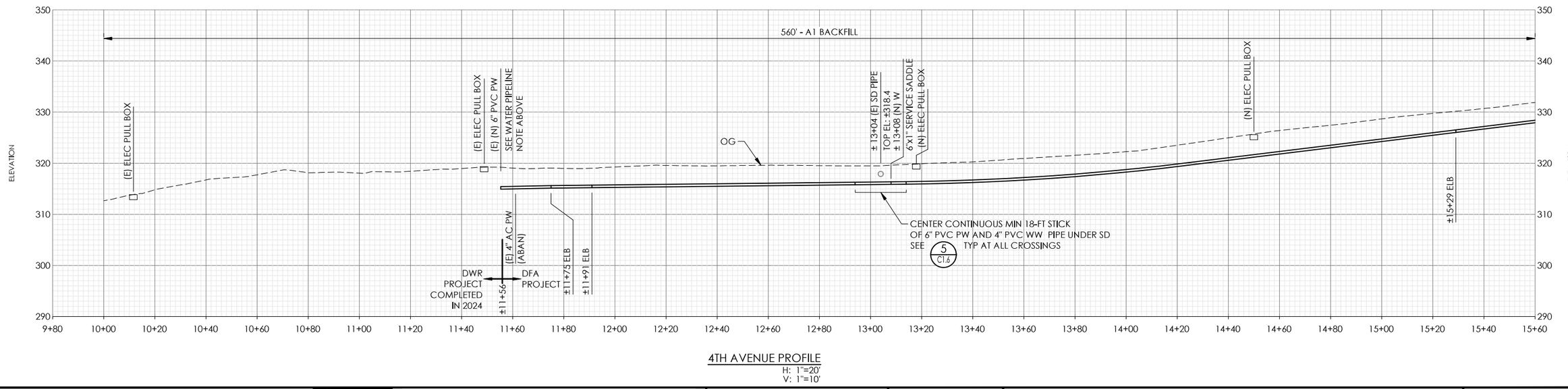
**4th Avenue Distribution System and Electric Conduit Improvements**
***Figures 3 through 6***

- Installation of ~3,300 feet of 4-inch-diameter waterline in 4th Avenue from the 4th Avenue Well to the WTP to blend groundwater with surface water prior to filtration.
- Replacement of ~1,100 feet of failed 4-inch-diameter asbestos cement waterline with a 6-inch-diameter polyvinyl chloride (PVC) waterline from the 4th Avenue Well to Railroad Avenue. Once the 6-inch-diameter waterline is in service, the existing 4-inch-diameter waterline would be abandoned.
- Installation of two valve connections, two fire hydrants, and one section valve off of the 6-inch waterline. Six existing water meters and meter boxes would be replaced along 4th Avenue. Existing water services would be connected to the new 6-inch-diameter waterline.
- Installation of new electrical conduit in 4th Avenue between the 4th Avenue Well and the WTP; subsurface 13-inch by 24-inch concrete electrical pull boxes would be installed every ~150 feet between conduit runs.

**Water Treatment Plant Site Improvements**
***Figures 6 through 12***

- Clearing and grading of areas in which improvements would occur.
- Construction of a new 2,400 square-foot (42 feet by 60 feet) water treatment plant (WTP) building in a previously undisturbed area, generally north of existing Tank 1. The new building would be two-story at a height of ~25 feet at the pitch of the roof. The building would include concrete masonry unit (CMU) block walls and a metal roof.
- Installation of miscellaneous piping, mechanical equipment, electrical equipment, and facilities in the new WTP building, including automatic coagulation dosing equipment, adsorption clarifiers, mixed media filtration, seasonal GAC pressure filtration, pre- and post-filtration online turbidity monitoring equipment, pre- and post-filtration UVA online monitoring, sodium hypochlorite dosing station, etc.
- Installation of an overhead electrical line extending from an existing power pole at the WTP site to a new power pole on the WTP site.
- Replacement of the existing HPZ pump station with a new pump station installed inside of the new WTP. The new pump station would include three pumps (two low-flow and one high-flow) and would be capable of meeting a 500-gallon fire flow as well as the peak hour demand of 70 existing residences in the HPZ, plus 30 additional residences who may want to receive service from the District in the future.
- Installation of a septic tank and a mound system leach field northwest of the new WTP. Two monitoring wells would be installed in the leach field.
- Installation of a new Septic Tank Effluent Pumping (STEP) system adjacent to the WTP.
- Installation of a ~20,000 square-foot parking and staging area surrounding the new WTP.
- Installation of a block wall around the north and east sides of the new WTP and parking lot to minimize grading and tree removal.
- Installation of a new propane-fueled emergency back-up generator with an automatic transfer switch, battery back-up, and two 1,000-gallon propane tank north of the new WTP to provide power during unplanned emergencies and Public Safety Power Shutoff events.




4TH AVENUE PROFILE
H: 1"=20'
V: 1"=10'

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PACE ENGINEERING

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PRELIMINARY NOT FOR CONSTRUCTION

WESTHAVEN COMMUNITY SERVICES DISTRICT
DISINFECTION BYPRODUCT REDUCTION PROJECT

WATER IMPROVEMENTS (STA 10+00 - 15+50)

**Figure 3**
Sheet C1.1

Plot Date: August 02, 2024 - 3:30 pm Login Name: ghamett
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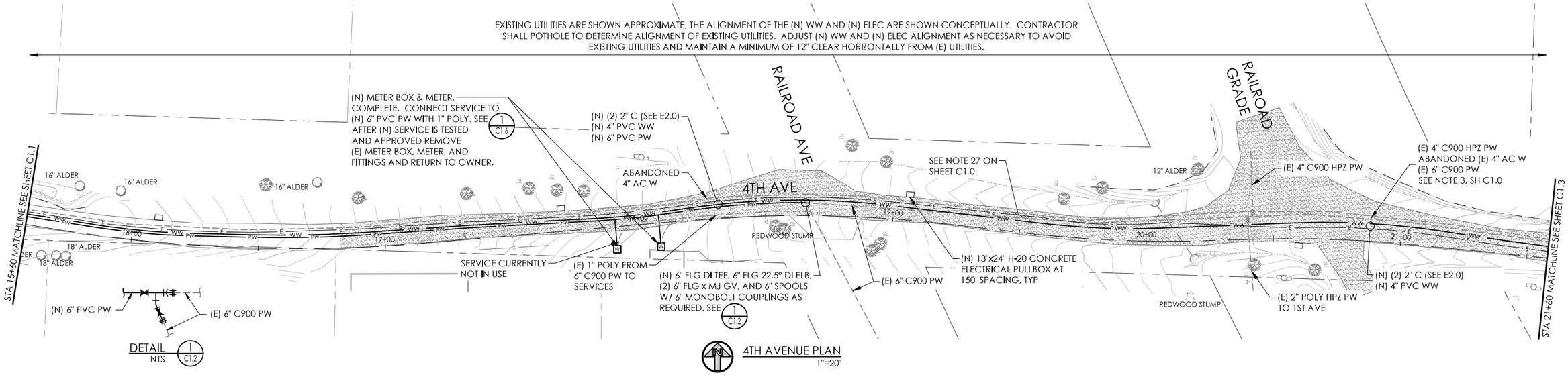
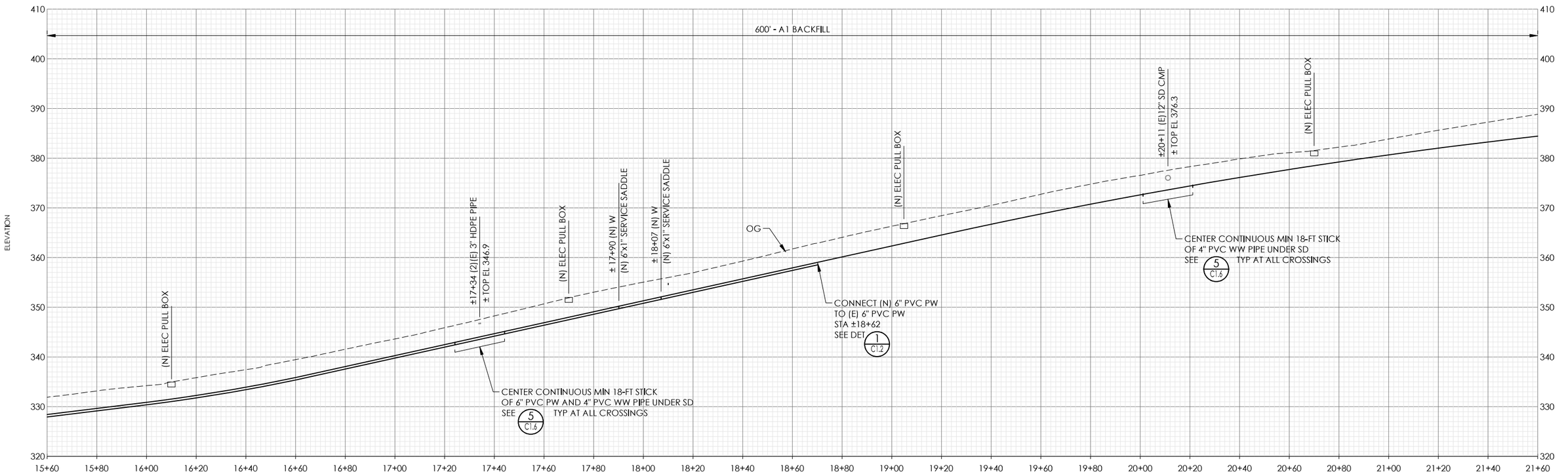
EXISTING UTILITIES ARE SHOWN APPROXIMATE, THE ALIGNMENT OF THE (N) WW AND (N) ELEC ARE SHOWN CONCEPTUALLY. CONTRACTOR SHALL POTHOLE TO DETERMINE ALIGNMENT OF EXISTING UTILITIES. ADJUST (N) WW AND (N) ELEC ALIGNMENT AS NECESSARY TO AVOID EXISTING UTILITIES AND MAINTAIN A MINIMUM OF 12" CLEAR HORIZONTALLY FROM (E) UTILITIES.




DETAIL 1/C1.2
NTS

4TH AVENUE PLAN
1"=20'




4TH AVENUE PROFILE
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WESTHAVEN COMMUNITY SERVICES DISTRICT
DISINFECTION BYPRODUCT REDUCTION PROJECT

WATER IMPROVEMENTS (STA 15+50 - 21+50)

**Figure 4**
Sheet C1.2

Plot Date: August 02, 2024 - 3:30 pm Login Name: dhamett
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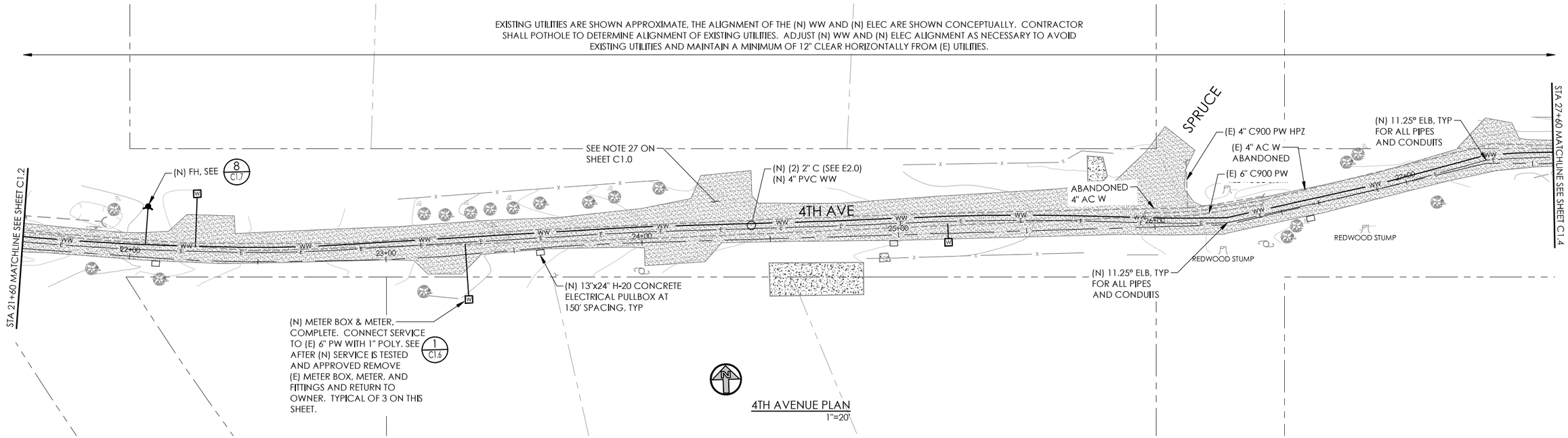
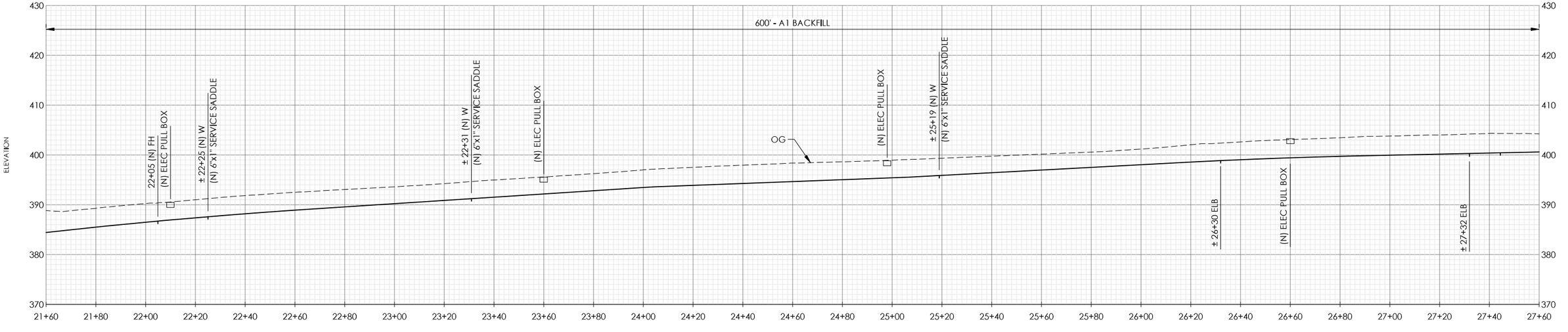



4TH AVENUE PLAN
1"=20'




4TH AVENUE PROFILE
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V: 1"=10'

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| DRN BWS | DATE 8/2/24 | 2973.04 |

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WESTHAVEN COMMUNITY SERVICES DISTRICT
DISINFECTION BYPRODUCT REDUCTION PROJECT

WATER IMPROVEMENTS (STA 21+50 - 27+50)

**Figure 5**
Sheet C1.3

Plot Date: August 02, 2024 - 3:31 pm Login Name: dhamett
File Name: M:\land projects\2973\04 westhaven csd exhg\01 CAD\05 CD\Westhaven CSD 10.dwg Layout: C13

EXISTING UTILITIES ARE SHOWN APPROXIMATE. THE ALIGNMENT OF THE (N) WW AND (N) ELEC ARE SHOWN CONCEPTUALLY. CONTRACTOR SHALL POTHOLE TO DETERMINE ALIGNMENT OF EXISTING UTILITIES. ADJUST (N) WW AND (N) ELEC ALIGNMENTS AS NECESSARY TO AVOID EXISTING UTILITIES AND MAINTAIN A MINIMUM OF 12" CLEAR HORIZONTALLY FROM (E) W

SEE C2 SHEETS FOR WATER TREATMENT PLANT CONNECTIONS

(N) WATER TREATMENT PLANT

STA 30+68 = END UNIT COST FOR 4" PVC WW

STA 33+60 MATCHLINE SEE SHEET C1.5

(N) 1"C
(N) 2" C
SEE SH E2.0

(N) TANK #2

(E) TANK #1

(N) FH W/ BOLLARDS

(E) 4" C900 HPZ PW
(E) 4" AC W ABANDONED
(E) 6" C900 PW

(N) 11.25° ELB FOR ALL PIPES AND CONDUITS, TYP

(E) HPZ PS, LAB & CHLORINATION DOSING STATION

(E) SHOP

STA 27+60 MATCHLINE SEE SHEET C1.3

(N) (2) 2" C (SEE E2.0)
(N) 4" PVC WW

TOP OF 12" CMP
EL: 403.71

SEE NOTE 27 ON SHEET C1.0

TOP OF 12" CMP
EL: 403.19

(N) 13"x24" H-20 CONCRETE ELECTRICAL PULLBOX AT 150' SPACING, TYP

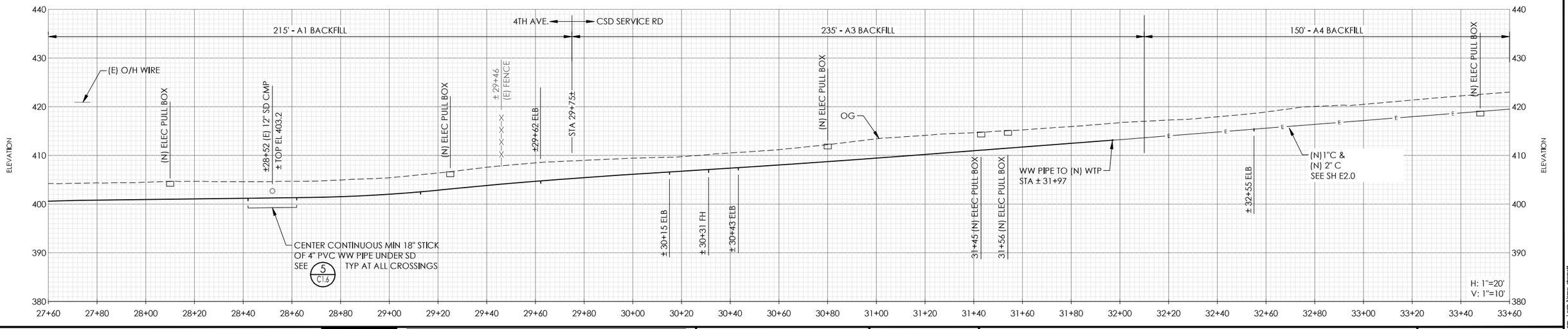
(N) 45° ELB, TYP FOR ALL PIPES AND CONDUITS

SEE C2 SHEETS FOR WATER TREATMENT PLANT CONNECTIONS

REFER TO PROJECT MANUAL ATTACHMENT J FOR PIPE CONVERSION OF (E) TANK 2 TO (N) BACKWASH/SLUDGE TANK

4TH AVENUE PLAN
1"=20'

(E) TANK #2

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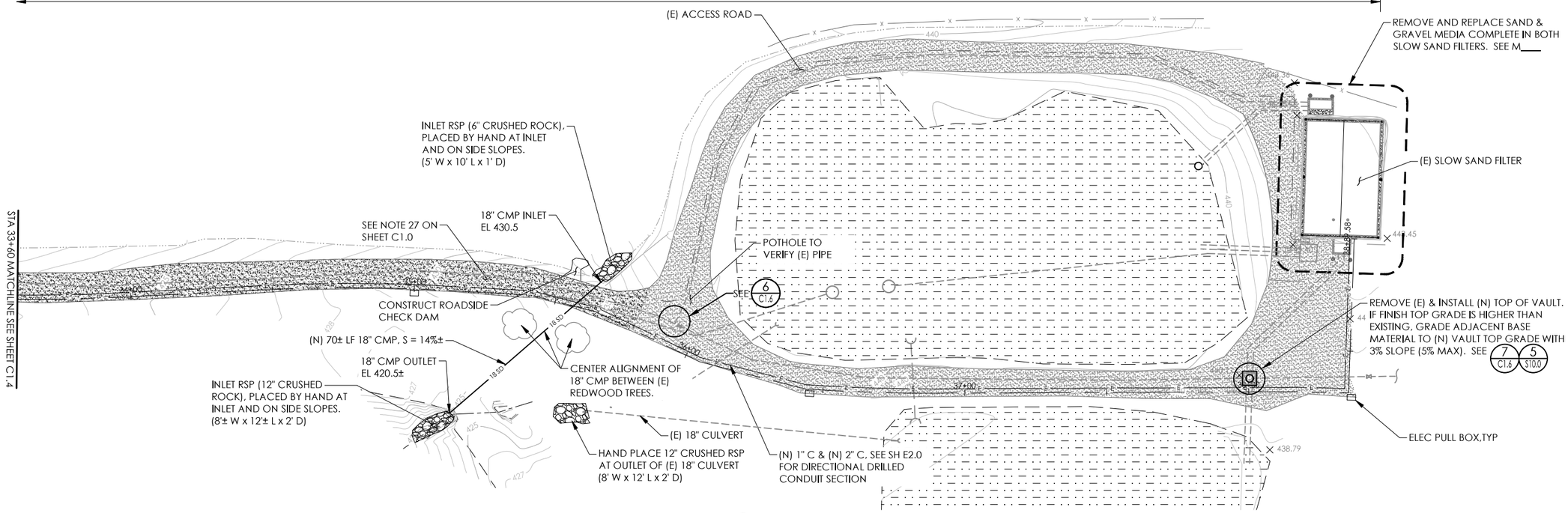
WESTHAVEN COMMUNITY SERVICES DISTRICT
DISINFECTION BYPRODUCT REDUCTION PROJECT

WATER IMPROVEMENTS (STA 27+50 - 33+50)

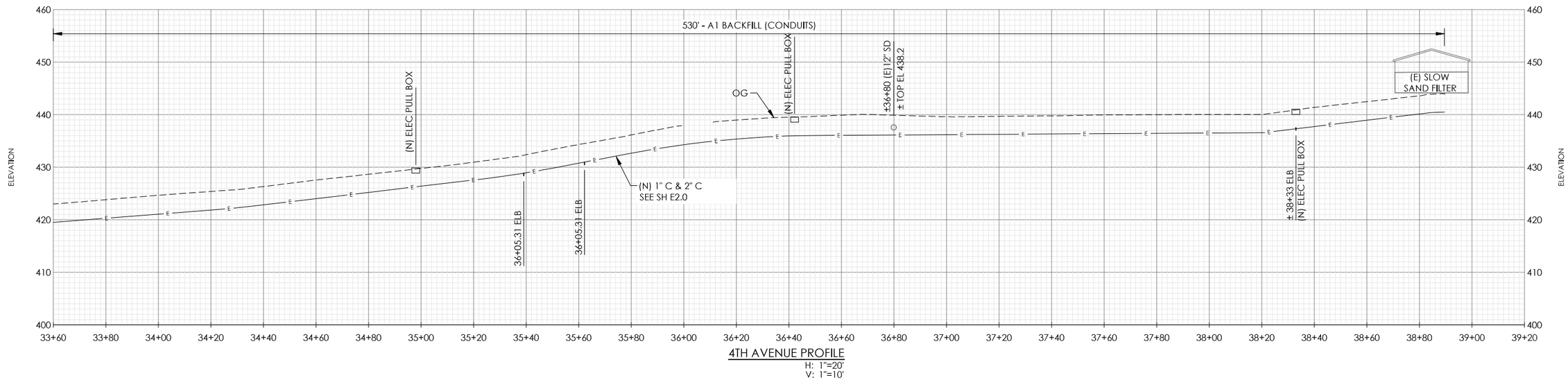
**Figure 6**
Sheet C1.4

Plot Date: August 02, 2024 - 3:31 pm Login Name: dhennett
File Name: M:\land projects\2973\04 westhaven csd edwg\01 CAD\05 CD\Westhaven CSD 10.dwg Layout: C14

EXISTING WATER PIPE ARE SHOWN APPROXIMATE, THE ALIGNMENT OF THE (N) ELEC IS SHOWN CONCEPTUALLY. CONTRACTOR SHALL POTHOLE TO DETERMINE ALIGNMENT OF EXISTING WATER AND ELECTRICAL. ADJUST (N) ELEC ALIGNMENT AS NECESSARY TO AVOID EXISTING UTILITIES AND MAINTAIN A MINIMUM OF 12" CLEAR HORIZONTALLY FROM (E) UTILITIES.




4TH AVENUE PLAN
1"=20'




4TH AVENUE PROFILE
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V: 1"=10'

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| DRN. BWS | DATE 8/2/24 | 2973.04 |

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WESTHAVEN COMMUNITY SERVICES DISTRICT
DISINFECTION BYPRODUCT REDUCTION PROJECT

CONDUIT IMPROVEMENTS (STA 33+50 - END)

**Figure 7**
Sheet C1.5

Plot Date: August 02, 2024 - 3:31 pm Login Name: dhamett
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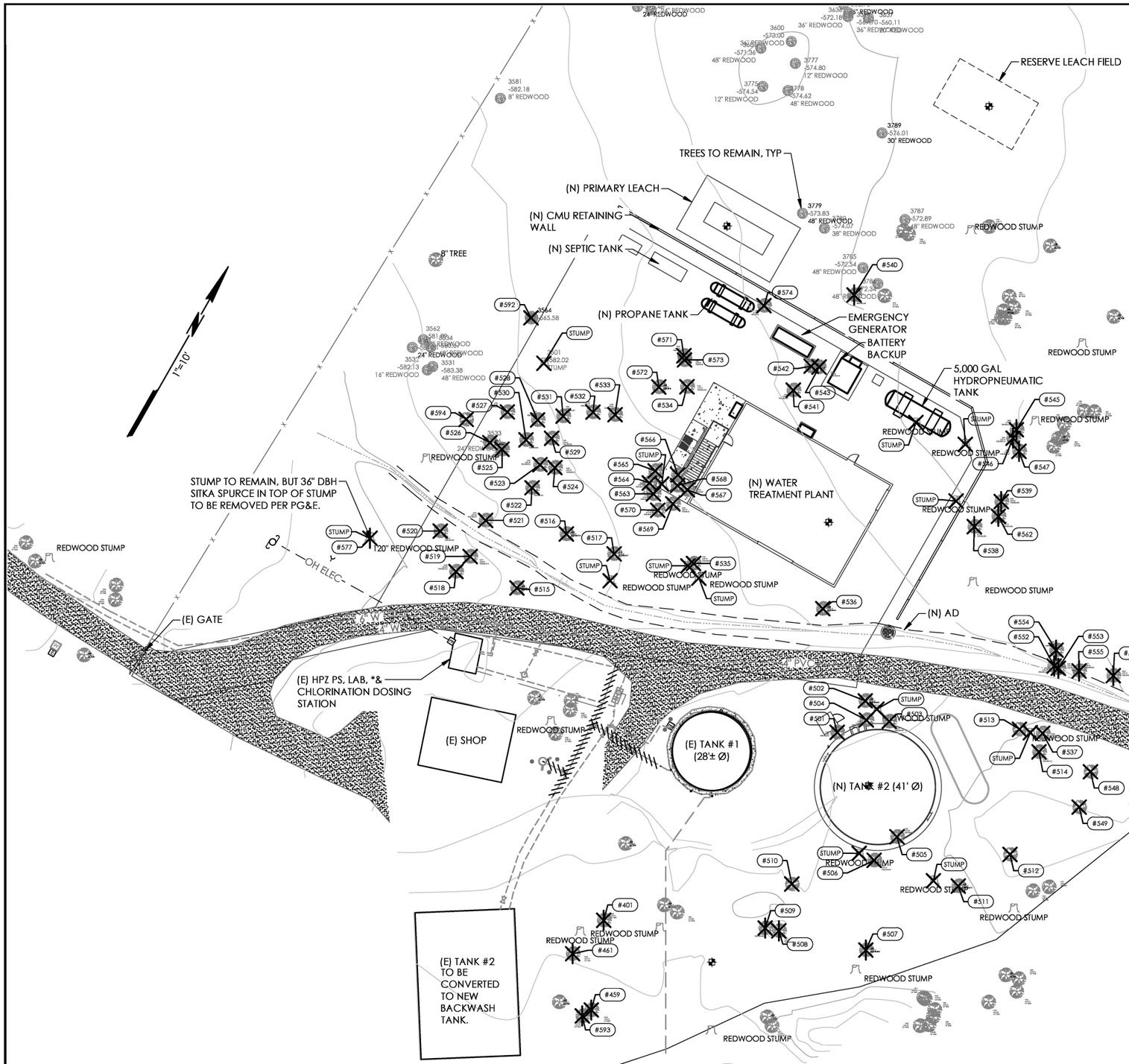


NOTES:

1. TREES, STUMPS, AND ROOT BALLS SHALL BE REMOVED
2. HUMBOLDT CROSSING SHALL BE REMOVED
3. ALL PIPING SHOWN TO BE DEMO'D SHALL BE DONE AFTER SYSTEM IS ONLINE AND/OR READY TO BE CHANGED OVER TO THE NEW PIPING.
4. CONTRACTOR SHALL USE NON DESTRUCTIVE HYDRO VAC TO POTHOLE LOCATE EXISTING UTILITIES AT 50 FT INTERVALS AND AT ALL INTERSECTIONS. CONTRACTOR SHALL SURVEY STAKE THE LOCATED UTILITIES WITH REFERENCE POINTS INCLUDING DEPTH AND UTILITY FOUND ON WOODEN LATHES. THE CONTRACTOR SHALL THEN REDESIGN AND BUILD THE NEW UTILITIES TO AVOID AND/OR RELOCATE THE EXISTING UTILITIES AS REQUIRED TO KEEP THE EXISTING WATER PRODUCTION FACILITIES IN SERVICE WHILE CONSTRUCTING THE NEW FACILITIES. THE CONTRACTOR SHALL SUBMIT THE PROPOSED REDESIGN TO THE ENGINEER FOR APPROVAL PRIOR TO PROCEEDING WITH INSTALLATION OF THE NEW FACILITIES. THE COSTS FOR THIS WORK SHALL BE INCLUDED IN THE MOST APPLICABLE ITEM IN THE PROPOSAL.
5. CONTRACTOR SHALL REMOVE TREES AND STUMPS WITHIN THE FOOTPRINT OF THE NEW FACILITIES. OTHERWISE TREES MARKED TO BE CUT, BUT ARE NOT WITHIN THE FOOTPRINT OF THE NEW FACILITIES, THE STUMPS SHALL REMAIN.
6. TREES LARGER THAN 6-IN DBH IDENTIFIED/NUMBERED TO BE REMOVED, TYP
7. TREES 6-IN DBH & SMALLER ARE NOT SHOWN IN THE WTP FOOTPRINT BUT SHALL BE REMOVED

TREE REMOVAL LEGEND:

REMOVE TREE AND STUMP

REMOVE TREE, STUMP TO REMAIN. STUMP SHALL BE 1-FT HIGH

**TREE REMOVAL LIST**

| ID Number | Diameter at Breast Height (inches) | Common Name |
|---|---|---|
| 501 | 54 | Redwood |
| 502 | 36 | Redwood |
| 503 | 36 | Redwood |
| 504 | 43 | Redwood |
| 505 | 54 | Redwood |
| 506 | 45 | Redwood |
| 507 | 60 | Redwood |
| 508 | 26 | Redwood |
| 509 | 12 | Redwood |
| 510 | 22 | Redwood |
| 511 | 31 | Redwood |
| 512 | 10 | Sitka Spruce |
| 513 | 42 | Redwood |
| 514 | 52 | Redwood |
| 515 | 63 | Redwood |
| 516 | 40 | Redwood |
| 517 | 22 | Grand Fir |
| 518 | 20 | Douglas Fir |
| 519 | 10 | Douglas Fir |
| 520 | 14 | Douglas Fir |
| 521 | 20 | Douglas Fir |
| 522 | 8 | Sitka Spruce |
| 523 | 10 | Sitka Spruce |
| 524 | 10 | Douglas Fir |
| 525 | 9 | Sitka Spruce |
| 526 | 8 | Sitka Spruce |
| 527 | 10 | Sitka Spruce |
| 528 | 12 | Sitka Spruce |
| 529 | 8 | Sitka Spruce |
| 530 | 7 | Sitka Spruce |
| 531 | 16 | Sitka Spruce |
| 532 | 10 | Sitka Spruce |
| 533 | 8 | Redwood |
| 534 | 32 | Redwood |
| 535 | 8 | Redwood |
| 536 | 42 | Redwood |
| 537 | 8 | Sitka Spruce |
| 538 | 8 | Sitka Spruce |
| 539 | 12 | Douglas Fir |
| 540 | 26 | Redwood |
| 541 | 8 | Sitka Spruce |
| 542 | 9 | Pacific Wax Myrtle |
| 543 | 9 | Pacific Wax Myrtle |
| 545 | 46 | Redwood |
| 546 | 44 | Redwood |
| 547 | 60 | Redwood |
| 548 | 8 | Red Alder |
| 549 | 9 | Red Alder |
| 550 | 7 | Sitka Spruce |
| 551 | 10 | Sitka Spruce |
| 552 | 7 | Redwood |
| 553 | 8 | Sitka Spruce |
| 554 | 10 | Sitka Spruce |
| 555 | 16 | Sitka Spruce |
| 556 | 10 | Sitka Spruce |
| 557 | 12 | Redwood |
| 558 | 10 | Redwood |
| 559 | 7 | Redwood |
| 560 | 10 | Sitka Spruce |
| 561 | 26 | Douglas Fir |
| 562 | 10 | Sitka Spruce |
| 563 | 48 | Redwood |
| 564 | 34 | Redwood |
| 565 | 44 | Redwood |
| 566 | 30 | Redwood |
| 567 | 65 | Redwood |
| 568 | 24 | Redwood |
| 569 | 55 | Redwood |
| 570 | 9 | Redwood |
| 571 | 9 | Redwood |
| 572 | 14 | Redwood |
| 573 | 28 | Redwood |
| 574 | 12 | Sitka Spruce |
| 577 | 36 | Sitka Spruce |
| 578 | 13 | Sitka Spruce |
| 401 | 30" | Redwood |
| 461 | 30 | Redwood |
| 459 | 26 | Redwood |
| 593 | 20 | Redwood |
| 592 | 34 | Grand fir |
| 594 | 30" | Sitka spruce |

NOTE: THE LAST 3 DIGITS OF THE TAG NUMBER ARE SHOWN ON THIS SHEET

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|---|---|---|
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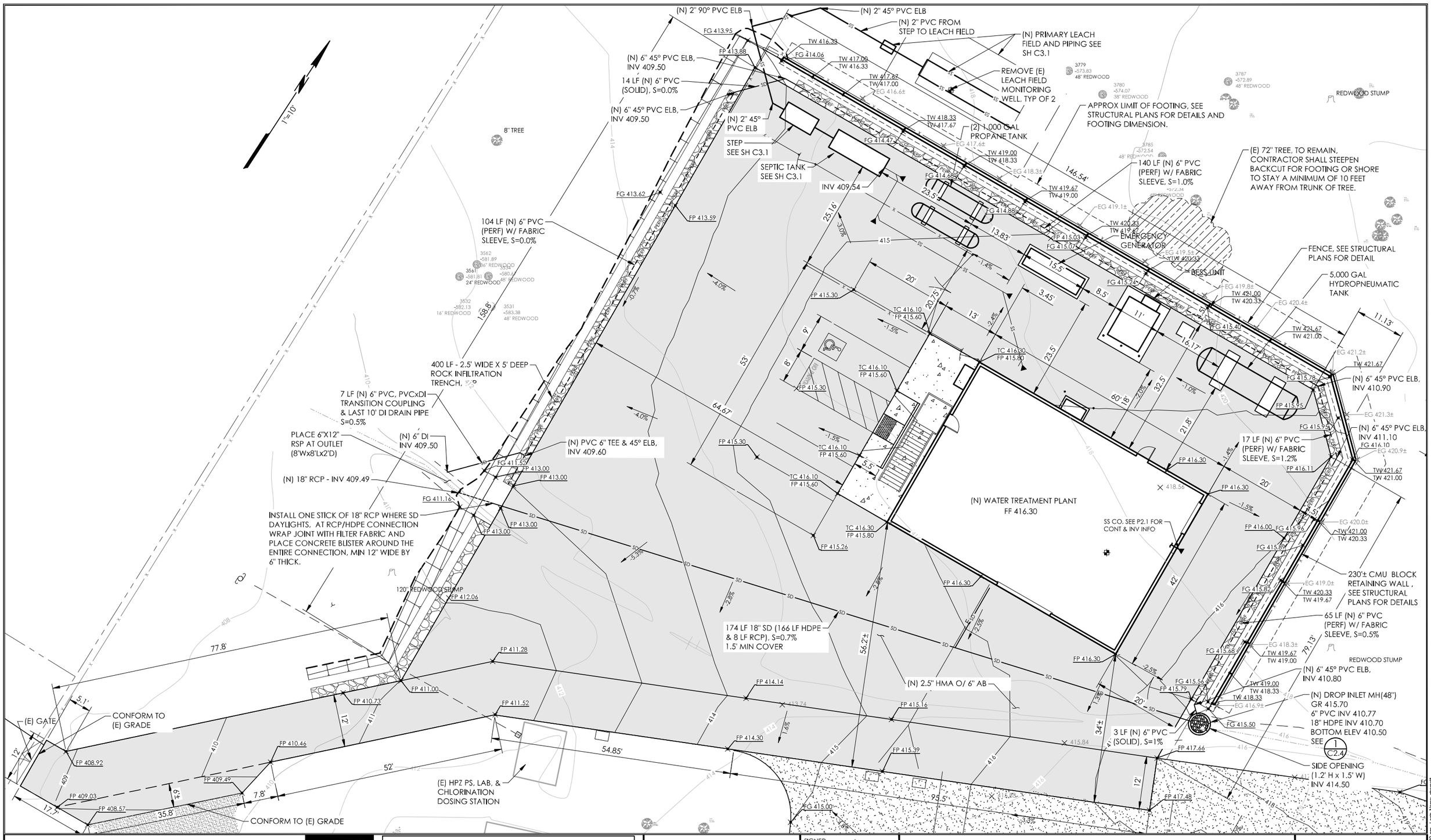
DISINFECTION BYPRODUCT REDUCTION PROJECT

WTP & TANK SITE PLAN IMPROVEMENTS AND DEMO

**Figure 8**
Sheet C2.1

Plot Date: August 02, 2024 - 3:32 pm Login Name: dhamlett
File Name: M:\land projects\2973\04 westhaven csd edwg\01 CAD\05 CD\EXIST SITE PLAN.dwg Layout: C2.1

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WTP GRADING, DRAINAGE, STORM DRAIN & STEP DISCHARGE PIPE PLAN

**Figure 9**
Sheet C2.2

Plot Date: August 02, 2024 - 3:32 pm Login Name: ahamlett
File Name: M:\land projects\2973\04 westhaven csd.dwg\01 CAD\05 GD\Westhaven CSD 20.dwg Layout: C22 R

1"=10'

(E) HPZ PS, LAB, & CHLORINATION DOSING STATION

(E) OPERATIONS BLDG

REDWOOD STUMP

(E) TANK #1
FTG EL 417.04

(N) TANK #2
FTG EL 417.00

(N) 6" CL 2 AB

INSTALL 6"x12" RIVER ROCK OVER GEOTEXTILE FABRIC ON CUT SLOPES (2:1), TYP

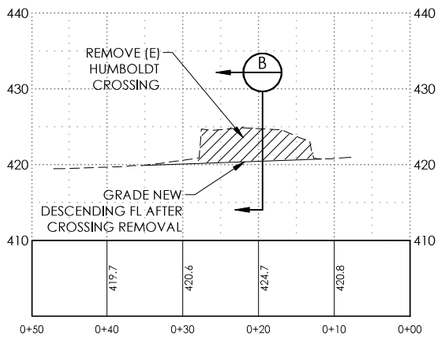
(E) TANK #2
(N) BACKWASH TANK

REDWOOD STUMP

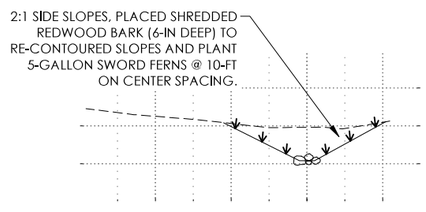
REDWOOD STUMP

REDWOOD STUMP

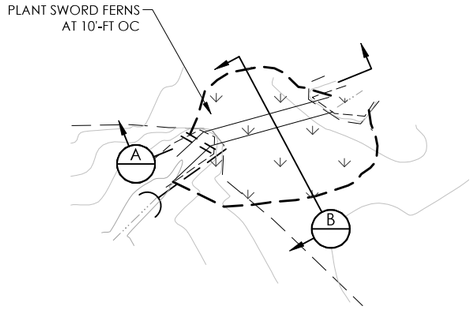
TANK GRADING PLAN 1 C2.2
1"=10




PROFILE - HUMBOLDT CULVERT A C2.3 C1.5
H&V: 1"=10




SECTION B C2.3
H&V: 1"=10




HUMBOLDT CULVERT GRADING 2 C2.3
1"=10

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DISINFECTION BYPRODUCT REDUCTION PROJECT

TANK GRADING PLAN

**Figure 10**
Sheet C2.3

Plot Date: August 02, 2024 - 3:32 pm Login Name: dhamlett
File Name: M:\land projects\2973\04 westhaven csd edwg\01 CAD\05 CDV\Westhaven CSD 22dwg Layout: C23 R

1"=10'

(E) TANK 2 CONVERTED TO BACKWASH/SLUDGE TANK

REFER TO PROJECT MANUAL ATTACHMENT J FOR CONVERSION OF (E) 6" C900 PW OUTLET TO (N) 4" BW INLET / S OUTLET AND CONVERSION OF (E) 4" SCHD 40 PW TO (N) 4" RCW INSIDE OF (E) TANK 2

(E) 6" C900 OUTLET
(E) 4" SCH 40 INLET

(N) 6"x4" MJ RED, 4" 90° & 11.25° MJ DI ELBS

(N) 4" 90° & 11.25° MJ DI ELBS

(N) 4" PVC BW/S

(N) 4" PVC RCW

REMOVE (E) FH & VALVES, AFTER SWITCH VER TO (N) WTP

APPROX LOCATION OF ABANDONED AC W. TO REMAIN ABANDONED IN PLACE UNLESS REMOVAL IS REQUIRED FOR CONSTRUCTION OF IMPROVEMENTS.

CONNECT (N) 6" PVC HPZ PW TO (E) 4" HPZ W/ 6X4 ECC RED. CAP (E) 4" HPZ TO HPZ PS. SEE NOTE 2

(E) 6" C900 PW

(E) 4" HPZ

(E) 4" PVC CL

SEE E2.0 FOR ELECTRICAL

(N) 4" PVC WW

SEE NOTE 2

(N) 6" PVC HPZ PW

(N) 8" PVC PW

8" FLG DI TEE, (2) 8" FLG DI GV, AND (3) FCA'S

SEE NOTE 3

(E) 4" PVC SSFE

(E) 4" C900

8" RMJ GV

8"X6" MJ CONC. REDUCER

INLET

OUTLET

DRAIN

OVERFLOW

(E) TANK 1
FTG EL 417.04

(N) 4" PVC FW

CONTRACTOR TO POTHOLE (E) 4" PVC DRAIN/OVERFLOW TO BE ABANDONED AFTER (N) DRAIN/OVERFLOW CONSTRUCTION TO VERIFY (E) LOCATION AND TIE-IN REQUIREMENTS

½"x4" SLOTS, TYP OF 10 EVENLY SPACED

3"x12" TYPE 304 SS

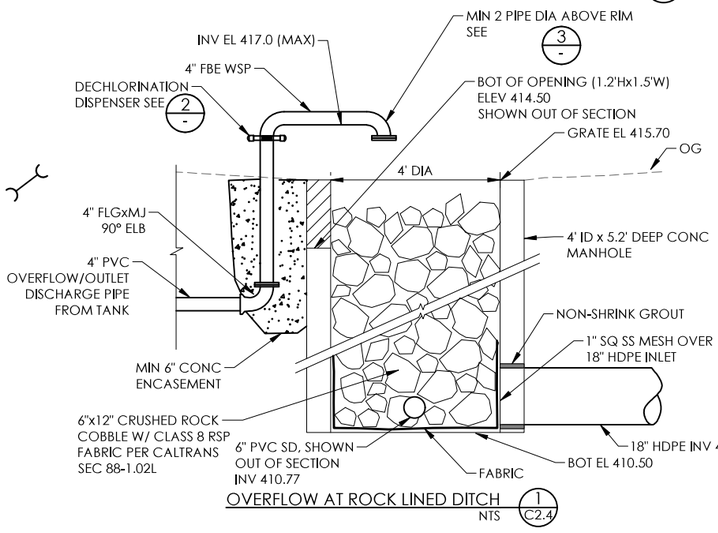
3" TYPE 304 SS THREADED CAP, TYP EA END

4" FBE WSP

¼" MESH SS TYPE 304

OVERFLOW OUTLET SCREEN 3 / C2.4 NTS

DECHLORINATION DISPENSER 2 / C2.4 NTS




OVERFLOW AT ROCK LINED DITCH 1 / C2.4 NTS

(N) 18" HDPE, SEE WTP GRADING PLAN

17'

POINT OF CONNECTION (POC), TYP. SEE MECH / PLUBMING PLANS FOR CONTINUATION AT ALL POCs.

4" WYE INV 409.80

INV 409.54

4" SS LAT 3 LF @ S=0.02

4" WYE INV 409.60

4" SS LAT 10 LF @ S=0.02

4" SS LAT 34 LF @ S=0.02

(N) 1,000 GAL PROPANE TANK, SEE MECHANICAL PLANS

(N) 2"??? GAS

4" WYE INV 410.48

(N) GENERATOR, SEE ELECTRICAL PLANS

4" SS LAT 16 LF @ S=0.02

4" WYE INV 410.80

SS CO W/ CONC RING & TRAFFIC RATE LID, TYP

(N) BATTERY BACKUP, SEE ELECTRICAL PLANS

(N) 4" PVC FW

(N) 5,000 GAL HYDROPNEUMATIC TANK

6" FLG DI TEE, 6" FLG GV, AND (3) FCA'S

4" S/BW

4" RCW

(N) 4" PVC HPZ PW

SEE NOTE 1, TYP

(N) 6" PVC HPZ PW

8" PW

4" FW

6" HPZ PW

CONNECT (N) 4" SSFE TO (E) 4" SSFE W/ 4" FLG DI TEE, FLG GV, AND (3) FCA'S SEE NOTE 2.

(N) EH W/ 2 - 4" BOLLARDS

6" FLGxMJ DI TEE, 6"x1" COMP FLG, & 6" FMJA

TTHM BLOWER SHED, FF 417.50

(N) 4" PVC DRAIN/OVERFLOW

4" FLG DI TEE, 4" FLG GV, AND (3) FCA'S

DROP INLET MH, TANK OVERFLOW, DECHLORINATOR & DISSIPATOR. SEE 1/-

SPRAY WASH SUPPLY, SEE TANK MECHANICAL

INLET

OVERFLOW

OUTLET

(N) TANK 2
FTG EL 417.00

(E) 4" C900 SSFE

(N) 6" PVC PW

(N) 4" PVC DRAIN/OVERFLOW

SEE E2.0 (N) 1" C & 2" C

NOTES:

1. EACH AND EVERY FITTING IS NOT CALLED OUT FOR CLARITY, UNO. FITTINGS ARE 90°└, 45°└, 22.5°└, 11.25°└, GV⋈, & TEE ⊥ MJ TYP, AS SHOWN, UNO. (N) PIPE SHALL BE C900 PVC UNO AND FITTINGS SHALL MATCH ADJACENT PIPE SIZE UNO.
2. CONTRACTOR SHALL PROPOSE & INSTALL TEMPORARY TEE, VALVES, & REQUIRED FITTINGS TO PERMIT BYPASSES FROM (E) TO (N) WTP FOR OPERATIONAL TESTING. AFTER (N) WTP HAS BEEN ACCEPTED BY OWNER, TEMPORARY BYPASSES SHALL BE REPLACED BY PERMANENT CONNECTIONS ACCEPTABLE TO THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
3. AFTER (N) WTP IS OPERATIONAL , CONTRACTOR SHALL REPLACE (E) 4" BFV/M AT TANK 1 INLET INCLUDING CONTROL BOX COMPLETE WITH 4"x4" SSTL SPACER FLG W/ (N) GASKETS COMPLETE.

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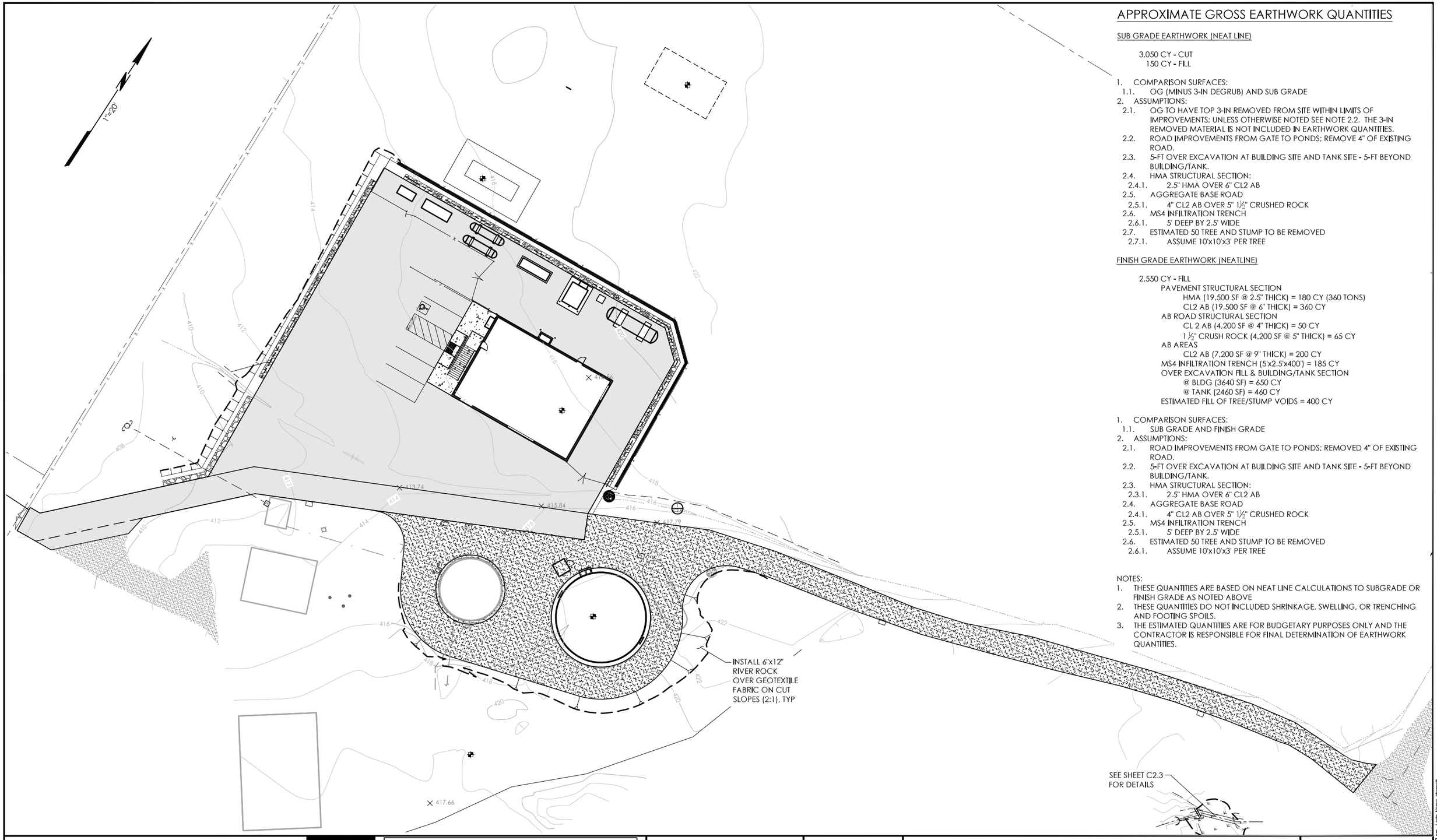
DISINFECTION BYPRODUCT REDUCTION PROJECT

SITE PIPING PLAN

**Figure 11**
Sheet C2.4

Plot Date: August 02, 2024 - 3:32 pm Login Name: dhamlett
File Name: M:\land projects\2973\04 westhaven cad\dwg\01 CAD\05 CD\Westhaven CSD 21.dwg Layout: C2.4




## APPROXIMATE GROSS EARTHWORK QUANTITIES

SUB GRADE EARTHWORK (NEAT LINE)

3,050 CY - CUT
150 CY - FILL

1. COMPARISON SURFACES:
 1.1. OG (MINUS 3-IN DEGRUB) AND SUB GRADE
2. ASSUMPTIONS:
 2.1. OG TO HAVE TOP 3-IN REMOVED FROM SITE WITHIN LIMITS OF IMPROVEMENTS; UNLESS OTHERWISE NOTED SEE NOTE 2.2. THE 3-IN REMOVED MATERIAL IS NOT INCLUDED IN EARTHWORK QUANTITIES.
 2.2. ROAD IMPROVEMENTS FROM GATE TO PONDS; REMOVE 4" OF EXISTING ROAD.
 2.3. 5-FT OVER EXCAVATION AT BUILDING SITE AND TANK SITE - 5-FT BEYOND BUILDING/TANK.
 2.4. HMA STRUCTURAL SECTION:
  2.4.1. 2.5" HMA OVER 6" CL2 AB
 2.5. AGGREGATE BASE ROAD
  2.5.1. 4" CL2 AB OVER 5" 1½" CRUSHED ROCK
 2.6. MS4 INFILTRATION TRENCH
  2.6.1. 5' DEEP BY 2.5' WIDE
 2.7. ESTIMATED 50 TREE AND STUMP TO BE REMOVED
  2.7.1. ASSUME 10'x10'x3' PER TREE

FINISH GRADE EARTHWORK (NEATLINE)

2,550 CY - FILL
PAVEMENT STRUCTURAL SECTION
HMA (19,500 SF @ 2.5" THICK) = 180 CY (360 TONS)
CL2 AB (19,500 SF @ 6" THICK) = 360 CY
AB ROAD STRUCTURAL SECTION
CL 2 AB (4,200 SF @ 4" THICK) = 50 CY
1½" CRUSH ROCK (4,200 SF @ 5" THICK) = 65 CY
AB AREAS
CL2 AB (7,200 SF @ 9" THICK) = 200 CY
MS4 INFILTRATION TRENCH (5'x2.5'x400') = 185 CY
OVER EXCAVATION FILL & BUILDING/TANK SECTION
@ BLDG (3640 SF) = 650 CY
@ TANK (2460 SF) = 460 CY
ESTIMATED FILL OF TREE/STUMP VOIDS = 400 CY

1. COMPARISON SURFACES:
 1.1. SUB GRADE AND FINISH GRADE
2. ASSUMPTIONS:
 2.1. ROAD IMPROVEMENTS FROM GATE TO PONDS; REMOVED 4" OF EXISTING ROAD.
 2.2. 5-FT OVER EXCAVATION AT BUILDING SITE AND TANK SITE - 5-FT BEYOND BUILDING/TANK.
 2.3. HMA STRUCTURAL SECTION:
  2.3.1. 2.5" HMA OVER 6" CL2 AB
 2.4. AGGREGATE BASE ROAD
  2.4.1. 4" CL2 AB OVER 5" 1½" CRUSHED ROCK
 2.5. MS4 INFILTRATION TRENCH
  2.5.1. 5' DEEP BY 2.5' WIDE
 2.6. ESTIMATED 50 TREE AND STUMP TO BE REMOVED
  2.6.1. ASSUME 10'x10'x3' PER TREE

NOTES:
1. THESE QUANTITIES ARE BASED ON NEAT LINE CALCULATIONS TO SUBGRADE OR FINISH GRADE AS NOTED ABOVE
2. THESE QUANTITIES DO NOT INCLUDED SHRINKAGE, SWELLING, OR TRENCHING AND FOOTING SPOILS.
3. THE ESTIMATED QUANTITIES ARE FOR BUDGETARY PURPOSES ONLY AND THE CONTRACTOR IS RESPONSIBLE FOR FINAL DETERMINATION OF EARTHWORK QUANTITIES.

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DISINFECTION BYPRODUCT REDUCTION PROJECT

WTP AND TANK OVERALL EARTHWORK

**Figure 12**
Sheet C2.6

Plot Date: August 02, 2024 - 3:33 pm Login Name: ghamett
File Name: M:\land projects\297304 westhaven csd ed\wg\01 CAD\05 C2D\Westhaven CSD 2024wg Layout C26 R

- Installation of a new 5,000-gallon hydropneumatic tank north of the new WTP.
- Replacement of the existing constructed ditch between the new WTP building and existing access road with ~190 linear feet of 18-inch corrugated metal stormdrain pipe to facilitate drainage. A 48-inch drop inlet would be installed at the eastern end of the stormdrain pipe. The existing constructed ditch would be filled.
- Construction of ~400 linear feet of rock infiltration trenches north, east, and west of the new WTP building to collect the majority of the runoff from the new WTP building and parking area. The infiltration trenches would be 2.5 feet wide and 5 feet deep.
- Installation of river rock over geotextile fabric on all cut slopes greater that 2:1.
- Re-grading the existing WTP access road and adding compacted aggregate base from the entrance gate to just west of the ponds.
- Installation of a new SCADA system.
- Conversion of existing Tank 2 to a backwash recycle/sludge containment tank.
- Construction of a new 200,000-gallon glass-fused bolted steel tank with an aluminum domed roof east of existing Tank 1. The new tank would be ~41 feet in diameter and ~38 feet in height to the top of the domed roof. An existing 5,000-gallon pressure tank would be removed.
- A ventilation blower would be installed on the ground adjacent to the new water tank for total trihalomethanes (TTHM) reduction.
- Installation of photovoltaic (PV) solar panels on the roof of the WTP building.
- Replacement of sand and gravel media in both slow sand filters.
- Installation of a new 4-inch slow sand filter bypass pipe. The pipe would be installed in the access road between the two existing ponds.

**Humboldt Crossing, Two Creek** ***(Figures 7 and 10)***

The project includes removal of an on-site Humboldt crossing (stream crossing constructed with logs set parallel to the stream channel and covered with fill) over the south branch of Two Creek, a locally named spring-fed stream. The crossing is located west of the WTP ponds.

Currently, the crossing impedes flows in Two Creek, causing incising, bank erosion, and increased sedimentation. Work includes removing the crossing and grading a new descending flow line. The newly exposed stream bank at the Humboldt crossing site would be graded to have side slopes of no more than 2:1. Six-inch-deep redwood bark would be installed on the recontoured creek slope, and five-gallon sword ferns or other similarly sized native vegetation would be planted at ten feet on center spacing to minimize the potential for erosion (see **Figure 10**).

In addition, drainage from a hillside north of the ponds is currently diverted to a roadside ditch, which extends over 1,000 feet before it enters Two Creek. CDFW has recommended that the flow be directed under the access road via a culvert that would discharge into the creek near the existing Humboldt crossing (see **Figure 7**). This would put the water in the upstream reach of Two Creek and enhance the biological values of this upper stream reach. As shown in **Figure 7**, an earthen dam would be installed in the roadside ditch on the north side of the access road to divert flows to a new 18-inch-diameter HDPE culvert that would extend to the creek; 12-inch crushed riprap would be installed by hand on the banks at the culvert outlet to dissipate flows.

Redirection of flow to the upstream reach of Two Creek and removal of the Humboldt crossing are not necessary actions for implementation of the proposed water treatment project. However, these two actions are proposed to mitigate the loss of waters resulting from project implementation (i.e., placing ~300 feet of ditch in a culvert on the south side of the proposed water treatment building. Removal of the Humboldt crossing over Two Creek would restore the topography of the creek to natural conditions that existed prior to construction of the crossing and would improve aquatic habitat at this location. Redirection of flow from the ditch to the stream would improve aquatic habitat within a ~1,000-foot reach of Two Creek.

**Pacific Gas and Electric (PG&E) Improvements**
***Figures 13a through 13h***

Improvements at the WTP require conversion of a single-phase power alignment to 480V/3-phase as well as extension of a powerline to the new WTP facilities. As shown in **Figures 13a through 13h**, the powerline conversion and extension would include installation of two new power poles, replacement in place of two power poles, installation of one new anchor pole, and installation of several guy anchors and associated appurtenances. Installation of these components would require pruning trees and other vegetation, as well as removing five trees (four adjacent to Railroad Avenue and one adjacent to 4th Avenue). The locations of the trees are shown in **Figures 13a and 13b**.

***Construction Methods and Considerations***

A Geotechnical Exploration Report was prepared by KC Engineering Company in January 2021 to evaluate the geotechnical conditions of the surface and subsurface soils at the Water Treatment Plant site. The evaluation included field reconnaissance, drilling of three exploratory test borings, logging, and sampling of the subsurface soils, laboratory testing of soil samples, performing percolation testing in the proposed leach field location, and identifying recommendations for site preparation, grading, and structure foundation systems. Based on the results of the exploration, geotechnical criteria were established for site grading, design of foundations, drainage, and the construction of other related improvements on the site. Recommendations included in the Geotechnical Report will be incorporated into the project plans, and inspections by a geotechnical engineer will be completed as recommended in the Geotechnical Report.

The 4th Avenue waterline and electric conduit would be installed using open-cut trenching. Where water features (e.g., streams, drainage ditches, etc.) are contained in culverts, improvements would be installed under the culverts using open-cut trenching. Utility trenches would be backfilled with native or approved import material and compacted, and roadways would be restored to pre-construction conditions or better. Other areas that are disturbed by construction would be revegetated as necessary. In accordance with resource agency permits, if pipes or conduit are installed by trenching through water features, the area would be restored to pre-construction contours. The maximum depth of excavation for installation of the pipeline and conduit would be six feet.

It is anticipated that construction would commence in May of 2025 and be completed by October 2027; however, proposed improvements may be phased based on the availability of funding and/or supply chain issues.


Path: N:\company\files\01-Jobs Active\032-69_PACE - Westhaven CSD Disinfection Byproduct Reduction Project\3-Project GIS\3-Map Documents\Map Sessions\CEQA\Figure 13a and 13b - PG&E Improvements\PG&E Improvements Project Boundary.aprx

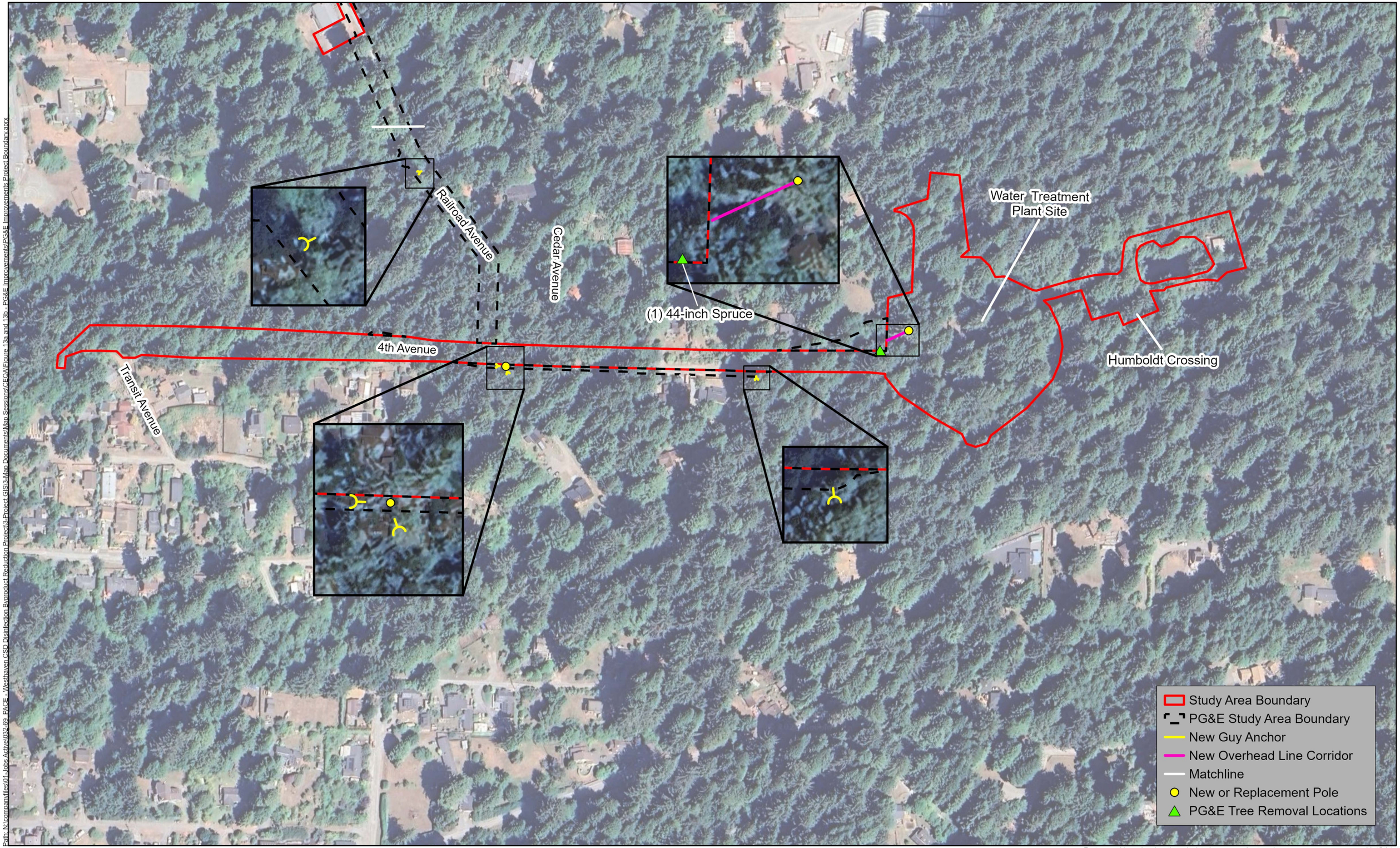
Feature and boundary locations depicted are approximate only.
This is not a survey product.

03.15.24

ENPLAN

Figure 13a

# PG&E Improvements and Tree Removal Locations




Feet
0 200

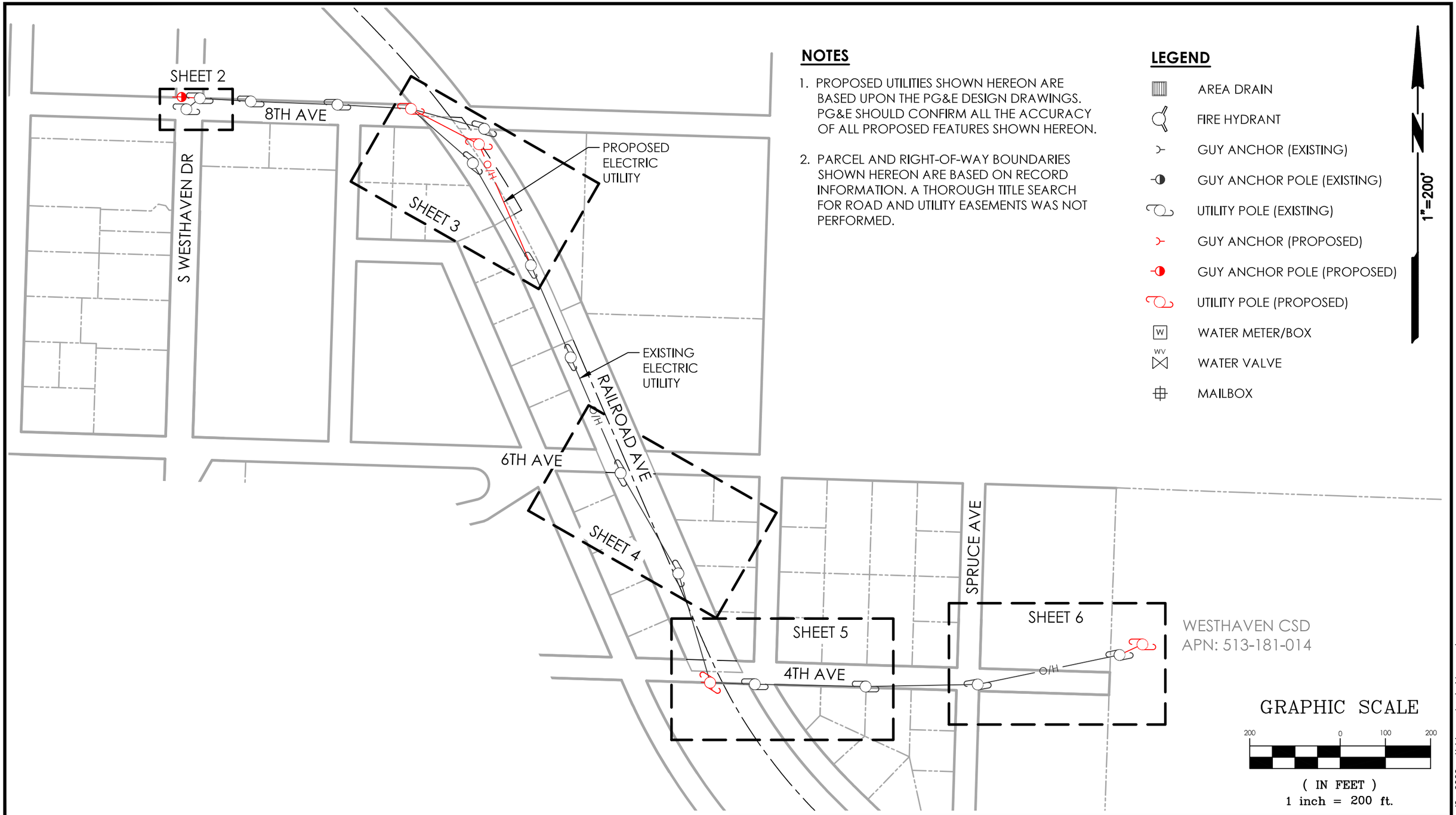
Feature and boundary locations depicted are approximate only.
This is not a survey product.

03.15.24

ENPLAN

Figure 13b

## PG&E Improvements and Tree Removal Locations




## NOTES

1. PROPOSED UTILITIES SHOWN HEREON ARE BASED UPON THE PG&E DESIGN DRAWINGS. PG&E SHOULD CONFIRM ALL THE ACCURACY OF ALL PROPOSED FEATURES SHOWN HEREON.
2. PARCEL AND RIGHT-OF-WAY BOUNDARIES SHOWN HEREON ARE BASED ON RECORD INFORMATION. A THOROUGH TITLE SEARCH FOR ROAD AND UTILITY EASEMENTS WAS NOT PERFORMED.

## LEGEND

- AREA DRAIN
- FIRE HYDRANT
- GUY ANCHOR (EXISTING)
- GUY ANCHOR POLE (EXISTING)
- UTILITY POLE (EXISTING)
- GUY ANCHOR (PROPOSED)
- GUY ANCHOR POLE (PROPOSED)
- UTILITY POLE (PROPOSED)
- W — WATER METER/BOX
- WV — WATER VALVE
- MAILBOX

1"=200'

WESTHAVEN CSD
APN: 513-181-014

GRAPHIC SCALE

200 0 100 200

( IN FEET )
1 inch = 200 ft.

PACE® ENGINEERING

WESTHAVEN CSD
PG&E POWER POLE ALIGNMENT

**Figure 13c**

DATE: 12/8/23

JOB #2630.13

SHEET 1

MCDONALD TRUST
APN: 514-032-004

LILLIBRIDGE
APN: 514-033-005

10'

40'

PROPOSED GUY ANCHOR
2-FEET± INSIDE OF
RIGHT-OF-WAY

PROPOSED POLE

EXISTING POLE

O/H

8TH AVE

S WESTHAVEN DR

50'
RIGHT-OF-WAY

EDGE OF PAVEMENT

VIGIL
APN: 514-012-001

WEINREB
APN: 514-013-001

60'
RIGHT-OF-WAY

GRAPHIC SCALE

10 0 5 10

( IN FEET )
1 inch = 10 ft.

1"=10'

PACE ENGINEERING

WESTHAVEN CSD
PG&E POWER POLE ALIGNMENT

**Figure 13d**

DATE: 12/8/23

JOB #2630.13

Plot Date: December 13, 2023 - 11:44 am Login Name: wmman
File Name: M:\Land Projects\2630.13 Westhaven CSD\Survey\Power line Topographic Survey.dwg, Layout: SHEET 2

LILLIBRIDGE
APN: 514-033-005

PROPOSED GUY ANCHOR
LESS THAN 2-FEET± FROM
RIGHT-OF-WAY

PROPOSED
GUY ANCHOR

MAILBOX

PROPOSED POLE
AND GUY ANCHORS

10" ALDER
14" ALDER
16" ALDER
18" ALDER
8" STUMP
14" ALDER
14" ALDER

O/H

MANKA TRUST
514-021-001

RAILROAD AVE

PROPOSED
POWERLINE

1"=30'

50'
RIGHT-OF-WAY

8TH AVE

PROPOSED POLE
REPLACE IN PLACE

EDGE OF ROAD

EASEMENT PER
DOC# 2020-001247

FORMER RAILROAD
RIGHT-OF-WAY

20'

50'

MONTOYA
514-021-008

MANKA TRUST
514-021-009

EXISTING
POWERLINE

50'

CENTERLINE
FORMER RAILROAD
RIGHT-OF-WAY

MONTOYA
514-015-002

WESTHAVEN COMMUNITY CHURCH
514-021-006

RAILROAD AVE

PROPOSED
GUY ANCHOR

GATE

WESTHAVEN COMMUNITY CHURCH
514-015-007

GRAPHIC SCALE

30 0 15 30

( IN FEET )
1 inch = 30 ft.

PACE ENGINEERING

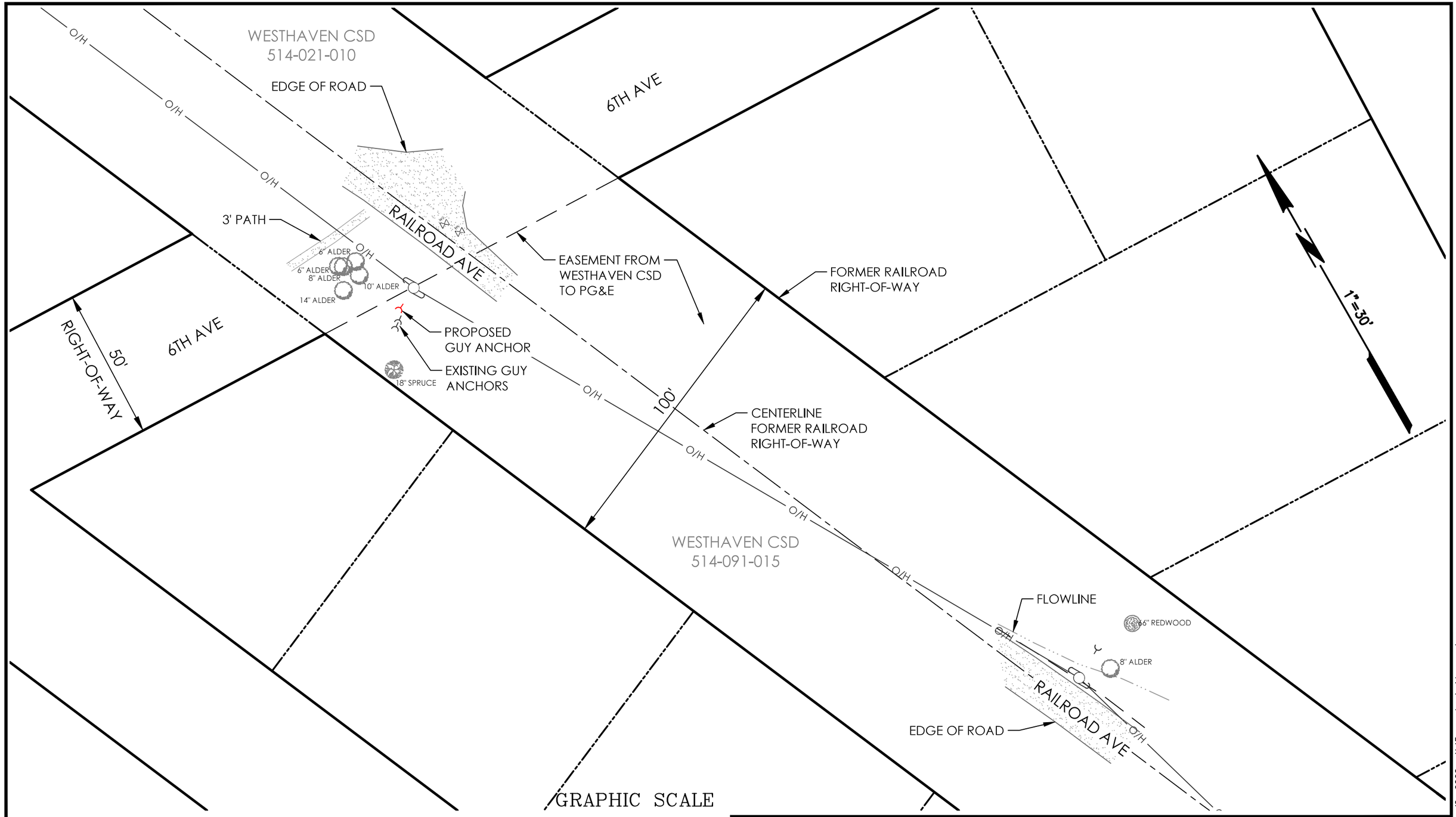
WESTHAVEN CSD
PG&E POWER POLE ALIGNMENT

**Figure 13e**

DATE: 12/8/23

JOB #2630.13

Plot Date: December 13, 2023 - 11:45 am Login Name: winman
File Name: M:\Land Projects\2630.13 Westhaven CSD\Survey\Power line Topographic Survey.dwg, Layout: SHEET 3




GRAPHIC SCALE

30 0 15 30

( IN FEET )

1 inch = 30 ft.

PACE ENGINEERING

WESTHAVEN CSD
PG&E POWER POLE ALIGNMENT

**Figure 13f**

DATE: 12/8/23

JOB #2630.13

Plot Date: December 13, 2023 - 11:45 am Login Name: winman
File Name: M:\Land Projects\2630.13 Westhaven CSD\Survey\Power line Topographic Survey.dwg, Layout: SHEET 4

WESTHAVEN CSD
514-091-015

FORMER RAILROAD
RIGHT-OF-WAY

10'

RAILROAD AVE

EASEMENT FROM
WESTHAVEN CSD
TO PG&E

CEDAR AVE

1"=30'

50'
RIGHT-OF-WAY

4TH AVE

EDGE OF ROAD

4TH AVE

4TH AVE

8" REDWOOD

10" ALDER

O/H

SD INV EL 376.01

42" SPRUCE

12" ALDER

PROPOSED GUY ANCHOR
LESS THAN 1-FOOT FROM
RIGHT-OF-WAY

PROPOSED POLE
(REPLACE IN PLACE)
LESS THAN 1-FOOT
FROM RIGHT-OF-WAY

PROPOSED GUY ANCHOR
15-FOOT± OUTSIDE OF
RIGHT-OF-WAY

VANDERHOOF
APN: 514-101-008

CENTERLINE
FORMER RAILROAD
RIGHT-OF-WAY

CEDAR AVE

GRAPHIC SCALE

30 0 15 30

( IN FEET )
1 inch = 30 ft.

PACE® ENGINEERING

WESTHAVEN CSD
PG&E POWER POLE ALIGNMENT

**Figure 13g**

DATE: 12/8/23

JOB #2630.13

Plot Date: December 13, 2023 - 11:45 am Login Name: winman
File Name: M:\Land Projects\2630.13 Westhaven CSD\Survey\Power line Topographic Survey.dwg, Layout: SHEET 5

50'
RIGHT-OF-WAY

1"=30'

SPRUCE AVE

CUSIMANO TRUST
APN: 514-093-002

EXISTING POWER LINE
OUTSIDE OF RIGHT-OF-WAY

O/H

33.4'

10' OLD-GROWTH
REDWOOD
STUMP

20" SPRUCE
14" SPRUCE
32" SPRUCE
12" SPRUCE
8" SPRUCE

PROPOSED POLE

EXISTING POLE AND GUY

4TH AVE

20" REDWOOD
14" REDWOOD
6" REDWOOD
40" SPRUCE
12" REDWOOD
12" REDWOOD
8" REDWOOD
32" REDWOOD
4" REDWOOD

50'
RIGHT-OF-WAY

4TH AVE

PROPOSED GUY ANCHOR
LESS THAN 1-FOOT FROM
RIGHT-OF-WAY

SPRUCE AVE

DAWSON TRUST
APN: 514-103-002

WESTHAVEN CSD
APN: 513-181-014

GRAPHIC SCALE

30 0 15 30

( IN FEET )
1 inch = 30 ft.

PACE ENGINEERING

WESTHAVEN CSD
PG&E POWER POLE ALIGNMENT

**Figure 13h**

DATE: 12/8/23

JOB #2630.13

Plot Date: December 13, 2023 - 11:45 am Login Name: winman
File Name: M:\Land Projects\2630.13 Westhaven CSD\Survey\Power line Topographic Survey.dwg, Layout: SHEET 6

## 3.3 CUMULATIVE IMPACTS ANALYSIS

As defined in §15355 of the CEQA Guidelines, a cumulative impact consists of an impact that is created as a result of the combination of a proposed project together with other closely related past, present, and reasonably foreseeable future projects that cause related impacts. As noted in §15064(h)(4) of the CEQA Guidelines, the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

Further, §15130(b) of the CEQA Guidelines states, *"The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."*

In addition to growth associated with the build-out projections in the County's General Plan, the projects described below were considered in determining whether the proposed project's impacts would be cumulatively considerable in accordance with §15064(h) of the CEQA Guidelines. No other related projects were identified as being reasonably foreseeable in accordance with §15144 of the CEQA Guidelines.

***Emergency Waterline Replacement Project***

On April 12, 2023, a CEQA Categorical Exemption was filed with the State Clearinghouse (SCH) for the Westhaven CSD Emergency Waterline Replacement Project (SCH Number 2023040280).

The project has been split into two phases: Schedule A and Schedule B. Schedule A includes replacement of ~5,560 feet of failing water mains and typical waterline appurtenances, including thrust blocks, shut off valves, air vacuum valves and ten fire hydrants. In addition, new meters will be installed at 33 existing service laterals to allow the District to remotely read water usage and identify leaks. An emergency intertie with the Moonstone Heights Mutual Water Association (MHMWA) will also be installed within the same alignment as the water main replacement; the intertie will not result in additional water supply capacity for the District or MHMWA as it will only be used as a temporary backup water supply in the event of an emergency. Schedule B includes rehabilitation of the 4th Avenue Well and completion of Wells 2 and 3.

The Emergency Waterline Replacement Project is currently under construction, and the Schedule A improvements will be completed prior to commencement of construction of the Disinfection Byproduct Reduction Project; however, there is a possibility that some of the Schedule B improvements may be completed at the same time as the Disinfection Byproduct Reduction Project improvements.

Construction contractors for both projects may travel on the same streets, and it is also possible that both projects would use the same staging areas. If both projects are constructed simultaneously, cumulative traffic and traffic noise as well as cumulative noise impacts and temporarily increased air emissions during construction would occur. However, because the majority of improvements associated with the Emergency Waterline Replacement Project will be completed prior to commencement of construction of the Disinfection Byproduct Reduction Project, cumulative impacts are anticipated to be minimal.

***4th Avenue Well Improvements***

On August 5, 2020, a CEQA Categorical Exemption was filed with the SCH for the installation of two temporary test wells adjacent to 4th Avenue (APN 514-132-008 on the north side of 4th Avenue and APN 514-133-001 on the south side of 4th Avenue) (SCH Number 2020080049).

The test wells were drilled in 2020, adjacent to the District's existing 100-foot-deep groundwater well (Well 1) located at the western terminus of 4th Avenue, APN 514-133-001. The District has secured funding through the DWR's Small Community Drought Relief Program to convert the two

temporary test wells to permanent wells; construct two new well sheds and a well control building; replace the existing Well 1 shed; and install a new 500-gallon propane tank, emergency back-up generator, barbed wire fencing, piping, and related appurtenances. The wells would be connected to the 4th Avenue waterline and electric conduit proposed under the Disinfection Byproduct Reduction Project.

Construction contractors for the 4th Avenue well improvements may travel on the same streets as contractors for the Disinfection Byproduct Reduction Project. It is also possible that both projects would use the same staging areas. If the 4th Avenue well improvements are constructed simultaneously with the Disinfection Byproduct Reduction Project, cumulative visual impacts (due to construction activities and staging of equipment and materials), traffic, construction noise and vibration, temporarily increased air emissions, and temporarily increased risk of wildfires would occur. The 4th Avenue Well Improvements would also contribute to the cumulative loss of potential wildlife habitat, impacts to cultural resources and tribal cultural resources (if present), and the introduction and spread of noxious weeds during construction.

During operations, the 4th Avenue Well project would potentially contribute to cumulative noise, air emissions, greenhouse gas (GHG) emissions, and traffic impacts.

Potential cumulative impacts are further discussed in the applicable resource sections in Section 4.0 below.

# SECTION 4.0 ENVIRONMENTAL ANALYSIS (CHECKLIST)

## 4.1 AESTHETICS

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 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

**Humboldt County**

The County's General Plan includes the following Goal, Policy, and Standards that apply to the proposed project:

| Conservation and Open Space Element | | |
|---|---|---|
| **Goal** | SR-G1 | Protect high-value scenic forest, agriculture, river, and coastal areas that contribute to the enjoyment of Humboldt County's beauty and abundant natural resources. |
| **Policy** | SR-P2 | In mapped scenic areas, new discretionary and ministerial development shall be consistent with and subordinate to natural contours, hilltops, tree lines, bluffs, and rock outcroppings. Visible disturbance and interruption of natural features shall be minimized to the extent feasible. |

| | | |
|---|---|---|
| | SR-P3 | Protect the scenic quality of designated Scenic Highways for the enjoyment of natural and scenic resources, coastal views, landmarks, or points of historic and cultural interest. |
| **Standard** | SR-S1 | Discretionary and ministerial development shall avoid visual disturbance of natural contours, hilltops, tree lines, forest landscapes, bluffs, and rock outcroppings, to the maximum extent feasible. Roads and public utility corridors shall be as narrow as feasible and follow natural contours. Natural features disturbed for construction purposes shall be restored to as close to natural condition as feasible. |
| | SR-S4 | New outdoor lighting shall be compatible with the existing setting. Exterior lighting fixtures and street standards (both for residential and commercial areas) shall be fully shielded, and designed and installed to minimize off-site lighting and direct light within the property boundaries. |

## DISCUSSION OF IMPACTS

### Questions A and C

Scenic vistas are defined as expansive views of highly valued landscapes from publicly accessible viewpoints. 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. According to the Humboldt County General Plan (Humboldt County, 2017), scenic resources in Humboldt County have not been mapped. Scenic resources in the project area include trees and other vegetation, and various streams.

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. In unpaved areas, aggregate base would be replaced or surface vegetation would be restored.

The PG&E powerline improvements would require removal of four alder trees adjacent to Railroad Avenue and one spruce adjacent to 4th Avenue (see **Figures 13a and 13b**). Given the significant number of trees and other vegetation that would remain, visual impacts associated with tree removal associated with the PG&E improvements would be minimal. In addition, two new fire hydrants would be installed adjacent to 4th Avenue. The fire hydrants would not be prominent features in the area. All other improvements would be subsurface or would replace existing facilities in the same location.

Existing facilities at the WTP site include a 100,000-gallon water tank, a ~87,000-gallon glass-fused bolted steel tank, a 5,000-gallon pressure tank, chlorine shed, outbuilding, and filtration building. Project components at the WTP site that have a potential to affect the existing visual character of the area include the new ~2,400 square-foot WTP building, ~25 feet in height; PV solar panels on the roof of the new WTP; a new power pole and overhead transformer; a new ~200,000-gallon water tank; an emergency back-up generator, two 1,000-gallon propane tanks, a 5,000-gallon hydropneumatic tank, and a new septic tank effluent pumping (STEP) system immediately north of the new WTP. The entire area in which improvements would occur would be graded, and ~81 trees would be removed. **Figure 4.1-1** includes 3D elevations of the proposed WTP building, water tank, and associated improvements.

Due to dense trees and other vegetation that would remain around the perimeter of the WTP site, none of the proposed improvements would be visible from properties to the north, south, and east. The new 200,000-gallon water tank and other improvements in the eastern area of the WTP site would not be visible from any surrounding properties or public viewpoints. The new WTP building would be located in the western area of the property. Although trees would be removed in this area, given the abundance of trees on- and off-site, improvements in the western area of the site would not be prominently visible from adjacent residences or public viewpoints. Individuals using the site for recreational purposes would notice the visual changes. However, given the large number of trees that would remain on site, the visual impact of tree removal would not be significant.

SOUTHEAST BUILDING PERSPECTIVE 1 C1.0
NTS

SOUTHWEST BUILDING PERSPECTIVE 2 C1.0
NTS

NORTHWEST BUILDING PERSPECTIVE 3 C1.0
NTS

SOUTHEAST PERSPECTIVE ON NEW WATER TANK 4 C1.0
NTS

NORTHWEST AERIAL PERSPECTIVE 5 C1.0
NTS

SOUTHWEST PERSPECTIVE ON NEW PAVED ACCESS ROAD 6 C1.0
NTS

# DRAFT BID DOCS

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

| REVISIONS | | |
|---|---|---|
| NO | DATE | DESCRIPTION |
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PACE® ENGINEERING

| | | |
|---|---|---|
| DES TWa | CKD TWa | JOB NO. |
| DRN BSt | DATE 8/2/24 | 2973.04 |

SIGNED
PRELIMINARY NOT FOR CONSTRUCTION

WESTHAVEN COMMUNITY SERVICES DISTRICT
DISINFECTION BYPRODUCT REDUCTION PROJECT

3D PERSPECTIVES OF PROPOSED SITE

SHEET
G8
PG 8 OF 144

Plot Date: August 02, 2024 - 3:40 pm Login Name: dhemert
File Name: M:\land projects\2973\04 westhaven cad edwg\01 CAD\03 SD\Whitesworks Modeldwg Layout: 8 3D PERSPECTIVES OF PROPOSED SITE

Therefore, because impacts during construction are temporary and would cease at completion of the project, above-ground structures would have only limited visibility from public viewpoints, and a significant number of trees would remain, 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**

According to the California Department of Transportation Scenic Highway Mapping System, there are no officially designated State Scenic Highways within the surrounding area. U.S. Route 101 is currently eligible for designation as a State Scenic Highway; however, the proposed improvements would not be visible from U.S. Route 101. Therefore, there would be ***no impact.***

**Question D**

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.

The proposed project would include installation of safety lighting at the new water tank and WTP building. 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 WTP building and water tank would be shielded by dense vegetation between the WTP site and adjacent properties.

With respect to the PV system, solar panels do not generate their own light and are designed to absorb rather than reflect light; therefore, the panels would not create a significant source of glare, would not create a hazard to individuals traveling on nearby roadways, and would not create a nuisance for people residing in the area. Therefore, impacts associated with light and glare would be ***less than significant***.

## CUMULATIVE IMPACTS

Potential cumulative projects in the area include growth according to the build-out projections in the Humboldt County General Plan. As documented above, the proposed project does not include any features that would result in a significant permanent change to the visual character of the area. Although ~81 trees would be removed at the WTP and five trees would be removed in the PG&E corridor to accommodate construction of the proposed project, given the abundance of trees in the area, this would not degrade the existing aesthetic quality of the site and its surroundings. Additionally, project-related lighting would include the possibility of construction lighting, but this 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 (Caltrans).** 2022. California Road System – Functional Classification. https://www.arcgis.com/apps/webappviewer/index.html?id=026e830c914c495797c969a3e5668538. Accessed December 2022.

**Humboldt County.** 2017. Humboldt County General Plan. https://humboldtgov.org/205/General-Plan. Accessed December 2022.

## 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 section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)) 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

#### FEDERAL

**Farmland Protection Policy Act**

The Farmland Protection Policy Act (FPPA) of 1981 applies to federal projects and federally funded activities that result in the irreversible conversion of farmland. Under the FPPA, farmland is land designated by the U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS), as prime, unique, or important farmland as further described below.

> *Prime farmland.* Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Prime farmland includes land that possesses the above characteristics but is currently being used to produce livestock or timber. It does not include land already in or committed to urban development or water storage;
>
> *Unique farmland.* Unique farmland is land other than prime farmland that is used for production of specific high-value food and fiber crops. Examples of such crops include citrus, tree nuts, olives, cranberries, fruits, and vegetables; and
>
> *Important farmland.* Important farmland is land other than prime or unique farmland that is of statewide or local importance for the production of food, feed, fiber, forage, or oilseed crops, as determined by the appropriate State or unit of local government agency or agencies.

The FPPA requires identification of potential adverse effects on farmland, identification of alternative actions and/or mitigation that could lessen adverse effects, and assurance that the project is consistent with State and local farmland preservation policies.

## 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. The following mapping categories, which are determined based on soil qualities and current 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.

### California Land Conservation Act (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.

### California Forest Legacy Program Act of 2007

The California Forest Legacy Program Act of 2007 (Public Resources Code [PRC] §12200-12276) was established to protect forest lands and aquatic resources in California by focusing on long-term conservation of productive forest lands; protecting wildlife habitats, rare plants, and biodiversity; maintaining wildlife habitat connectivity; protecting riparian habitats, oak woodlands, ecological old growth forests, and other key forest types; protecting water quality, fisheries, and water supplies; maintaining and restoring natural ecosystem functions; and encouraging improvements to enhance long-term sustainable forest uses while providing forest areas with increased protection against other land uses that conflict with forest uses.

Pursuant to PRC §12220(g), forest land is defined 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."*

### Z'berg-Nejedly Forest Practice Act of 1973

The Z'Berg-Nejedly Forest Practice Act of 1973 (PRC §4511 *et seq.*) established Forest Practice Rules (CAL FIRE, 2024) that apply to forest management activities (i.e., timber harvesting, timberland conversion, fire hazard removal, etc.,) in the State. 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."* Commercial species are defined by region in California Code of Regulations Title 14, §895.1.

The California Department of Forestry and Fire Protection (CAL FIRE) has oversight responsibility for private forest and timberland in the State. When a private landowner converts timberland to non-timber uses (agricultural, residential, commercial, etc.), the owner must file a Timberland Conversion Permit with CAL FIRE. In addition, a timber harvest permit from CAL FIRE is required for tree cutting on private property in the following circumstance:

1. The land meets the definition of timberland pursuant to PRC §4526 **AND**

2. The trees are sold, traded, bartered, or exchanged; **OR** the area in which the trees were cut is developed with another use (e.g., house, commercial/industrial building, vineyard, etc.).

With certain limitations, some types of timber operations are exempt from the requirement to prepare a Timber Harvest Plan (THP) (e.g., harvesting dead, dying, or diseased trees, removing trees to eliminate fire fuels within 150 feet of an existing structure, etc.). A Conversion Exemption is provided for areas less than three acres.

### California Timberland Productivity Act of 1982

The Timberland Productivity Act of 1982 (Government Code §51104) defines timberland as privately-owned land, or land acquired for State forest purposes, which is devoted to and used for growing and harvesting timber, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre. The Act established Timberland Production Zones (TPZ) for the purpose of discouraging the premature conversion of timberland to other uses. TPZs are rolling ten-year contracts that provide preferential tax assessments to qualified timberlands. Government Code §51104(g) defines TPZ 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

### Humboldt County

The County's General Plan includes the following Goals, Policies, and Standards that apply to the proposed project:

| Land Use Element/Conservation and Open Space Elements | | |
|---|---|---|
| **Goals** | AG-G1 | Economically viable agricultural operations contributing to the growth and stability of the economy and a strong market demand for agricultural lands dedicated to agricultural production. |
| | AG-G2 | Agricultural land preserved to the maximum extent possible for continued agricultural use in parcel sizes that support economically feasible agricultural operations. |
| | FR-G1 | Public and private forests producing a wealth of multiple economic and natural resource values and ecosystem services. Constructive dialog and cooperation between state, federal and local agencies and private property owners and a regulatory framework that maximizes private and public interests and ecosystem services. |
| | FR-G2 | A prosperous timber industry managing a stable inventory of productive forest lands for timber production. Ranches and rural homesteads making full use of the timber production potential of their lands. |
| | FR-G3 | An adequate and stable supply of forestlands whose economic and ecosystem services are sustained by policies and standards governing minimum parcel sizes, public acquisition, incompatible uses, public infrastructure investments, environmental protection and incentives for sustainable uses. |
| | FR-G4 | Timberlands protected from the encroachment of incompatible uses and managed for the inclusion of compatible uses. |
| **Policies** | CO-P5 | Support conservation easement programs that protect natural resource and open space assets. Where private and/or nonprofit options do not exist or are not needed, the County may consider accepting voluntary offers of conservation easements that generate economic returns to the landowners and continued resource production, in exchange for permanent protection of natural resource and open space values. |
| | FR-P2 | Defer to CAL FIRE on timber harvest reviews; comment only where County land-use patterns have significantly contributed to use conflicts as directed by the Board. |
| **Standards** | AG-S7 | Prime Agricultural land per California Government Code Section 51201(c) means: |

| | |
|---|---|
| | A. All land which qualifies for rating as Class I or Class II in the Soil Conservation Service land use capability classifications.<br>B. Land which qualifies for rating 80 through 100 in the Storie Index Rating.<br>C. 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 acre as defined by the USDA.<br>D. Land planted with fruit or nut bearing trees, vines, bushes, or crops which have a non- bearing 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 $200.00 per acre.<br>E. Land which has returned from the production of unprocessed agricultural plant products on an annual gross value of not less than $200.00 per acre for three of the five previous years. |
| FR-S3 | Prior to the issuance of a building permit on lands regulated by the Forest Practices Act, the owner must obtain, where necessary, a timber conversion permit or timber conversion exemption from the state lead agency. |

## DISCUSSION OF IMPACTS

**Questions A, B, and D**

According to the *Important Farmland in California* map (California Department of Conservation, 2023), the project area was not surveyed for inclusion in the FMMP. Humboldt County General Plan Standard AG-S7 provides a definition for prime agricultural land, which is consistent with California Government Code 51201(c). Prime agricultural land means any of the following:

1. All land rated as Class 1 or Class 2 in the Natural Resource Conservation Service (NRCS) land use capability classifications (LCC).
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 U.S. Department of Agriculture (USDA).
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.
5. Land which has returned from the production of unprocessed agricultural plant products on an annual gross value of not less than $200.00 per acre for three of the five previous years.

A review of NRCS records (NRCS, n.d.) identified three soil types in the project site: Megwil and Cannonball soils, 0 to 5 percent slopes; Lepoil-Espa-Candymountain complex, 10 to 50 percent slopes; and Hutsinpillar, 2 to 9 percent slopes. A soils map is included in **Appendix C**.

The majority of work, including all improvements on the WTP site, would occur in areas with Hutsinpillar soils. According to the NRCS, the LCC rating for the Hutsinpillar soil type 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 Hutsinpillar soil is 21 to 40 (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, bushes, or crops, and has not historically been used for the production of agricultural plant products. No properties within the study area are subject to a Williamson Act contract (DOC, 2023). The proposed improvements are located within road ROW and on District property, and none of the improvements would impede agricultural uses on private properties in the area.

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 County's Zoning Map, proposed improvements would not be located on land zoned for timberland production. The project would not conflict with existing zoning for, or cause rezoning of, forest land.

As described under Regulatory Context, undeveloped areas in the study area meet the definition of forest land pursuant to PRC §12220(g) and timberland pursuant to PRC §4526. As shown in **Figure 8** and described in **Table 4.2-1**, construction of the water treatment building, water tank, and leach field would result in the removal of approximately 81 second- or third-growth trees with a diameter at breast height (DBH) of 6 inches or greater. In addition, 13 existing stumps would be removed on site and one tree ~5 inches DBH would be removed to facilitate removal of the Humboldt crossing on Two Creek. 0Four alder trees adjacent to Railroad Avenue and one spruce adjacent to 4th Avenue also would be removed to accommodate PG&E powerline extension improvements (see **Figures 13a and 13b**). The 44" DBH spruce is growing on a redwood stump and has unstable roots. The four alders are all ≤18" DBH.

**Table 4.2-1**
**Trees to be Removed at the WTP Site**

| ID Number | Diameter at Breast Height (inches) | Common Name | Scientific Name |
|---|---|---|---|
| 401 | 30 | Redwood | *Sequoia sempervirens* |
| 459 | 26 | Redwood | *Sequoia sempervirens* |
| 461 | 30 | Redwood | *Sequoia sempervirens* |
| 501 | 54 | Redwood | *Sequoia sempervirens* |
| 502 | 36 | Redwood | *Sequoia sempervirens* |
| 503 | 36 | Redwood | *Sequoia sempervirens* |
| 504 | 43 | Redwood | *Sequoia sempervirens* |
| 505 | 54 | Redwood | *Sequoia sempervirens* |
| 506 | 45 | Redwood | *Sequoia sempervirens* |
| 507 | 60 | Redwood | *Sequoia sempervirens* |
| 508 | 26 | Redwood | *Sequoia sempervirens* |
| 509 | 12 | Redwood | *Sequoia sempervirens* |
| 510 | 22 | Redwood | *Sequoia sempervirens* |
| 511 | 31 | Redwood | *Sequoia sempervirens* |
| 512 | 10 | Sitka Spruce | *Picea sitchensis* |
| 513 | 42 | Redwood | *Sequoia sempervirens* |
| 514 | 52 | Redwood | *Sequoia sempervirens* |
| 515 | 63 | Redwood | *Sequoia sempervirens* |
| 516 | 40 | Redwood | *Sequoia sempervirens* |
| 517 | 22 | Grand Fir | *Abies grandis* |
| 518 | 20 | Douglas Fir | *Pseudotsuga menziesii* |
| 519 | 10 | Douglas Fir | *Pseudotsuga menziesii* |
| 520 | 14 | Douglas Fir | *Pseudotsuga menziesii* |
| 521 | 20 | Douglas Fir | *Pseudotsuga menziesii* |
| 522 | 8 | Sitka Spruce | *Picea sitchensis* |
| 523 | 10 | Sitka Spruce | *Picea sitchensis* |

| ID Number | Diameter at Breast Height (inches) | Common Name | Scientific Name |
|---|---|---|---|
| 524 | 10 | Douglas Fir | *Pseudotsuga menziesii* |
| 525 | 9 | Sitka Spruce | *Picea sitchensis* |
| 526 | 8 | Sitka Spruce | *Picea sitchensis* |
| 527 | 10 | Sitka Spruce | *Picea sitchensis* |
| 528 | 12 | Sitka Spruce | *Picea sitchensis* |
| 529 | 8 | Sitka Spruce | *Picea sitchensis* |
| 530 | 7 | Sitka Spruce | *Picea sitchensis* |
| 531 | 16 | Sitka Spruce | *Picea sitchensis* |
| 532 | 10 | Sitka Spruce | *Picea sitchensis* |
| 533 | 8 | Redwood | *Sequoia sempervirens* |
| 534 | 32 | Redwood | *Sequoia sempervirens* |
| 535 | 8 | Redwood | *Sequoia sempervirens* |
| 536 | 42 | Redwood | *Sequoia sempervirens* |
| 537 | 8 | Sitka Spruce | *Picea sitchensis* |
| 538 | 8 | Sitka Spruce | *Picea sitchensis* |
| 539 | 12 | Douglas Fir | *Pseudotsuga menziesii* |
| 540 | 26 | Redwood | *Sequoia sempervirens* |
| 541 | 8 | Sitka Spruce | *Picea sitchensis* |
| 542 | 9 | Pacific Wax Myrtle | *Morella californica* |
| 543 | 9 | Pacific Wax Myrtle | *Morella californica* |
| 545 | 46 | Redwood | *Sequoia sempervirens* |
| 546 | 44 | Redwood | *Sequoia sempervirens* |
| 547 | 60 | Redwood | *Sequoia sempervirens* |
| 548 | 8 | Red Alder | *Alnus rubra* |
| 549 | 9 | Red Alder | *Alnus rubra* |
| 550 | 7 | Sitka Spruce | *Picea sitchensis* |
| 551 | 10 | Sitka Spruce | *Picea sitchensis* |
| 552 | 7 | Redwood | *Sequoia sempervirens* |
| 553 | 8 | Sitka Spruce | *Picea sitchensis* |
| 554 | 10 | Sitka Spruce | *Picea sitchensis* |
| 555 | 16 | Sitka Spruce | *Picea sitchensis* |
| 556 | 10 | Sitka Spruce | *Picea sitchensis* |
| 557 | 12 | Redwood | *Sequoia sempervirens* |
| 558 | 10 | Redwood | *Sequoia sempervirens* |
| 559 | 7 | Redwood | *Sequoia sempervirens* |
| 560 | 10 | Sitka Spruce | *Picea sitchensis* |
| 561 | 26 | Douglas Fir | *Pseudotsuga menziesii* |
| 562 | 10 | Sitka Spruce | *Picea sitchensis* |
| 563 | 48 | Redwood | *Sequoia sempervirens* |
| 564 | 34 | Redwood | *Sequoia sempervirens* |
| 565 | 44 | Redwood | *Sequoia sempervirens* |

| ID Number | Diameter at Breast Height (inches) | Common Name | Scientific Name |
|---|---|---|---|
| 566 | 30 | Redwood | *Sequoia sempervirens* |
| 567 | 65 | Redwood | *Sequoia sempervirens* |
| 568 | 24 | Redwood | *Sequoia sempervirens* |
| 569 | 55 | Redwood | *Sequoia sempervirens* |
| 570 | 9 | Redwood | *Sequoia sempervirens* |
| 571 | 9 | Redwood | *Sequoia sempervirens* |
| 572 | 14 | Redwood | *Sequoia sempervirens* |
| 573 | 28 | Redwood | *Sequoia sempervirens* |
| 574 | 12 | Sitka Spruce | *Picea sitchensis* |
| 577 | 36 | Sitka Spruce | *Picea sitchensis* |
| 578 | 13 | Sitka Spruce | *Picea sitchensis* |
| 592 | 34 | Grand Fir | *Abies grandis* |
| 593 | 20 | Redwood | *Sequoia sempervirens* |
| 594 | 30 | Sitka Spruce | *Picea sitchensis* |

*Source: BBW & Associates Forestry Consultants. Forestry Technical Assistance Report for Water System Improvements at Westhaven Community Services District, 2021; PACE Engineering Improvement Plans, August 2, 2024.*

Of the trees on the WTP site that are marked for removal, 77 are native conifers and 4 are native broadleaf species; 42 of the trees to be removed are redwoods and, of these redwoods, 25 are mature second-growth trees with a DBH of 30 inches or greater. Many of the smaller diameter Sitka spruce, Douglas fir, and redwood trees are suppressed trees (overtopped trees) with crowns below the general level of the canopy that receive no direct light. Due to the lack of light in the forest understory, these trees are not likely to persist in the forest stand on-site. In addition, the majority of mature redwoods proposed for removal are the result of stump sprouting and are grouped tightly together. Removal of these trees will temporarily create a gap in the forest canopy; however, adjacent residual mature redwood tree crowns will rapidly fill the gap.

Removal of these trees would result in the conversion of ~1.0 acre of timberland and forest land to non-timber and non-forest use. As such, the proposed project is subject to the California Forest Practices Rules (CAL FIRE, 2024), including the requirement to obtain a Public Agency, Public and Private Utility Right-of-Way Exemption; Timberland Conversion Permit (TCP); and/or approval of a Timber Harvest Plan (THP) by the California Department of Forestry and Fire Protection (CAL FIRE) prior to earth disturbance in this area.

According to the Humboldt County General Plan, 80 percent of the County's 2.3 million acres are forested. Fifty percent (~1.15 million acres) of the County's land is private commercial timberland. The project's conversion of ~1.0 acre of land represents a very small percentage of timberland in the County; therefore, the conversion of ~1.0 acre of timberland would be considered a ***less-than-significant impact.***

As stated under Regulatory Context above, "forest land" is defined 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 project site supports 10 percent tree cover under natural conditions and provides for wildlife biodiversity; thus, the project site meets the definition of forest land. The loss of native trees on forest land would be considered a significant impact, and mitigation is required.

As discussed in Section 6.4 (Biological Resources), **Mitigation Measure (MM) 4.4.4** is included to offset direct impacts to trees. **MM 4.4.4** requires the District to implement one of the following

measures: acquire two acres (2:1 ratio) of property in the Luffenholtz Creek-Frontal Pacific Ocean watershed and record deed restrictions to ensure that the property remains in open space condition in perpetuity; establish a conservation easement to be conveyed to/held by a third-party conservation-oriented entity (such as Save the Redwoods League) covering a minimum of two acres (2:1 ratio) of redwood forest if located in the Luffenholtz Creek-Frontal Pacific Ocean watershed in Humboldt County, or three acres (3:1 ratio) of redwood forest if located outside of the Luffenholtz Creek-Frontal Pacific Ocean watershed in Humboldt County; or contribute an appropriate compensation fee to a CDFW-approved redwood conservation fund to protect a minimum of three acres (3:1 ratio) of redwood forest in Humboldt County. Implementation of **MM 4.4.4** would ensure the proposed project's impact on forest land, as defined by PRC §12220(g), is ***less than significant.***

## CUMULATIVE IMPACTS

As documented above, the project would not result in impacts to agricultural resources; therefore, the proposed project would not contribute to adverse cumulative impacts to agricultural resources. As documented above, project implementation would result in the removal of approximately 81 trees from the WTP site and five trees in the PG&E corridor. These trees are in an area that meets the definition of forest land under PRC §12220(g). However, the magnitude of tree removal is low in relation to the distribution and availability of timberland and forest land in the region. Additionally, **MM 4.4.4** is included to offset the project's conversion of forest land. Therefore, the project's impacts on forest resources would not be cumulatively considerable.

## MITIGATION

Implementation of **MM 4.4.4.**

## DOCUMENTATION

**California Department of Forestry and Fire Protection.** 2024. California Forest Practice Rules. https://bof.fire.ca.gov/media/qs5p1yk4/2024-forest-practice-rules-and-act-final.pdf. Accessed May 2024.

**California Department of Conservation (DOC).** 2023. California Important Farmland Finder. https://maps.conservation.ca.gov/dlrp/ciff/. Accessed May 2024.

_____. 2023. California Williamson Act Enrollment Finder. https://gis.conservation.ca.gov/portal/home/webmap/viewer.html?useExisting=1&layers=81496a0daba7465b89d90bfed53c2252. Accessed May 2024.

**U.S. Department of Agriculture, Natural Resource Conservation Service (NRCS).** n.d. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed May 2024.

# 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 ($NO_X$).<br>These reactions are stimulated by sunlight and temperature; thus, ozone occurs in higher concentrations during warmer times of the year. | • Respiratory symptoms.<br>• Worsening of lung disease leading to premature death.<br>• Damage to lung tissue.<br>• Crop, forest, and ecosystem damage.<br>• 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. |

| Pollutant | Characteristics | Primary Effects | Major Sources |
|---|---|---|---|
| **Carbon Monoxide (CO)** | Carbon monoxide is an odorless, colorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline and wood.<br>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.<br>• Headache.<br>• Light-headedness.<br>• Reduced mental alertness. | Motor vehicle exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces. |
| **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.<br>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.<br>• Damage to lung tissue.<br>• Worsening of cardiovascular disease.<br>• Precursor to ozone and acid rain.<br>• Contributes to global warming and nutrient overloading which deteriorates water quality.<br>• 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.<br>• Worsening of cardiovascular disease.<br>• Damage to a variety of materials, including marble, iron, and steel.<br>• Damages crops and natural vegetation.<br>• Impairs visibility.<br>• 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.<br>Particulate matter with a diameter of 10 microns or less ($PM_{10}$) are 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.<br>• Hospitalization for worsening of cardiovascular disease.<br>• Hospitalization for respiratory disease<br>• Asthma-related emergency room visits.<br>• 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. |

| Pollutant | Characteristics | Primary Effects | Major Sources |
|---|---|---|---|
| **Lead (Pb)** | A heavy metal that occurs both naturally in the environment and in manufactured products. | • Impaired mental functioning in children<br>• Learning disabilities in children<br>• Brain and kidney damage.<br>• Reproductive disorders.<br>• 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. |

### Clean Air Act - Federal General Conformity Rule

The General Conformity Rule of the CAA requires that all federally funded projects conform to the applicable State Implementation Plan (SIP). The Conformity Rule applies to projects in areas that are designated as nonattainment or maintenance areas for any of the six federal criteria air pollutants when the total direct and indirect emissions of the criteria pollutant (or its precursors) are at or above the de minimis thresholds listed in Code of Federal Regulations (CFR) Title 40, §93.153(b). Because Humboldt County is designated as an unclassified area for all federal air quality standards, federal conformity requirements do not apply to the proposed project.

## 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) (CARB, 2022a). 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** includes 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/$m^3$ | – |
| 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, 2022a; CARB 2016. Notes: mg/$m^3$=milligrams per cubic meter; ppm=parts per million; ppb=parts per billion; µg/$m^3$=micrograms per cubic meter*

### 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). 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, 2022b).

### 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 off-road heavy-duty diesel vehicles in California. 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 Regulation requires that fleets meet an increasingly stringent set of fleet average targets, culminating in 2023 for large and medium fleets, and in 2028 for small fleets. The most stringent fleet average target generally corresponds to a 2012 model year, or a Tier 3 average standard (CARB, 2022c).

All self-propelled off-road diesel vehicles 25 horsepower (HP) or greater used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to the regulation, including rented and leased vehicles. The regulation imposes limits on idling, restricts adding older vehicles into fleets, and requires fleet owners to reduce their emissions by retiring, replacing, repowering, or retrofitting older engines. In addition, the Portable Equipment Registration Program (PERP) requires all portable engines 50 HP or greater to be registered in PERP or be permitted by a local air district.

The regulations were most recently updated on November 17, 2022, and require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California earlier or beyond what is required of fleets in the Off-Road Regulation. The updated regulations also prohibit the addition of high-emitting vehicles to a fleet and require the use of renewable diesel (99 or 100 percent renewable) in off-road diesel vehicles. The amended regulations will be phased in starting in 2024 through the end of 2036 (CARB, 2023; 2022d).

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 current regulation of approximately 31,087 tons of $NO_X$ and 2,717 tons of $PM_{2.5}$. About half of those additional reductions are expected to be realized within the first five years of implementation.

**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 Humboldt County. The NCUACMD 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 Humboldt County are subject to applicable NCUAQMD rules and regulations in effect at the time of construction.

Humboldt County is currently designated as a non-attainment area for the State 24-hour standard for $PM_{10}$; the County is designated as an attainment or unclassified area for all other federal and State ambient air quality standards (CARB, 2022g).

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. However, information included in the 1995 study is not considered the air quality attainment plan for the District. The NCUAQMD regulates $PM_{10}$ emissions through Rule 104, Prohibitions Part D, 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.

Humboldt County has not adopted air quality thresholds for emissions of Reactive Organic Gases (ROG), Oxides of Nitrogen (NOx) or $PM_{10}$ 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 |
| 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*

**Humboldt County**

The County's General Plan includes the following Goals, Policies, and Standards that apply to the proposed project:

| **Air Quality Element** | | |
|---|---|---|
| **Goals** | AQ-G1 | Air quality that meets state and federal ambient air quality standards. |
| | AQ-G2 | Successful attainment of California Ambient Air Quality Standards for particulate matter. |
| | AQ-G3 | Maintain attainment of Ambient Air Quality Standards for ozone and other criteria pollutants which may be subject to tightening standards. |
| **Policies** | AQ-P4 | Dust control practices on construction and grading sites shall achieve compliance with NCAQMD fugitive dust emission standards. |
| | AQ-P5 | During environmental review of discretionary permits, reduce emissions of air pollutants from new commercial and industrial development by requiring feasible mitigation measures to achieve standards of the NCAQMD. |

| | | |
|---|---|---|
| | AQ-P7 | Coordinate with the NCAQMD early in the permit review process to identify expected regulatory outcomes and minimize delays for projects involving:<br>A. CEQA Environmental Review;<br>B. Building demolition projects that may involve removal of asbestos-containing material subject to National Emission Standards for Hazardous Air Pollutants (NESHAP); and<br>C. Grading and mining operations subject to State Airborne Toxic Control Measures (ATCM) for naturally occurring asbestos.<br>Rely on the air quality standards, permitting processes, and enforcement capacity of the NCAQMD to define thresholds of significance and set adequate mitigations under CEQA to the maximum extent allowable. |
| **Standards** | AQ-S1 | Ground disturbing construction and grading shall employ fugitive dust control strategies to prevent visible emissions from exceeding NCAQMD regulations and prevent public nuisance. |
| | AQ-S3 | During environmental review of discretionary projects, evaluate new commercial and industrial sources of emissions using analytical methods and significance criteria used, or recommended by, the NCAQMD. |
| | AQ-S5 | Regulate the location and operation of land uses to avoid or mitigate harmful or nuisance levels of air emissions to the following sensitive receptors: residential uses, hospitals and nursing/convalescent homes, hotels and lodging, schools and day care centers and neighborhood parks. New development shall follow the recommendations for siting new sensitive land uses consistent with the ARB's recommendation (See General Plan for reference table). |

## 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, 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 two and a half years; however, actual construction dates will depend on funding availability.
- Total land disturbance would be approximately 2.03 acres; 5,600 cubic yards (CY) of material would be imported; 3,100 CY would be exported.
- The total area to be paved would be 0.44 acres.
- The total area receiving architectural coatings would be 8,800 square feet.
- Approximately 81 trees with a diameter of 6-inch DBH and larger would be removed to facilitate construction at the WTP. Five trees with a diameter of 6-inch DBH and larger would be removed to facilitate construction of the PG&E improvements.

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 Humboldt County and NCUAQMD have not adopted specific thresholds for construction-related air quality emissions, the District has determined that it would be appropriate to use current NCUAQMD rules, including Rule 110, New Source Review and Prevention of Significant Deterioration, which includes thresholds for new and modified stationary sources. **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 | | | | | |
|---|---|---|---|---|---|---|
| | **ROG** | **NOx** | **$PM_{10}$** | **$PM_{2.5}$** | **CO** | **$SO_2$** |
| | Max. lbs/day | Max. lbs/day | Max. lbs/day | Max. lbs/day | Max. lbs/day | Max. lbs/day |
| **2025** | 2.84 | 27.3 | 5.08 | 2.61 | 26.7 | 0.07 |
| **2026** | 1.19 | 10.1 | 0.37 | 0.33 | 11.8 | 0.02 |
| **2027** | 4.41 | 9.72 | 0.33 | 0.30 | 11.8 | 0.02 |
| **NCUAQMD Threshold** | 50 | 50 | 80 | 50 | 500 | 80 |

*Source: CalEEMod, 2023.*

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

**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, deliveries, solid waste disposal, etc.), as well as indirect emissions associated with energy use. 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 generator; however, the generator 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**

| Pollutants of Concern (Maximum Pounds per Day) | | | | | | |
|---|---|---|---|---|---|---|
| **Source** | **ROG** | **NOx** | **$PM_{10}$** | **$PM_{2.5}$** | **CO** | **$SO_2$** |
| Mobile | 0.07 | 0.08 | 0.08 | 0.02 | 0.45 | Trace |
| Area | 0.13 | Trace | Trace | Trace | 0.13 | Trace |
| Energy | Trace | 0.03 | Trace | Trace | 0.03 | Trace |
| Stationary | 0.23 | 0.72 | 0.04 | 0.04 | 0.64 | Trace |
| Vegetation | 0 | 0.02 | 0.04 | 0.01 | 0 | Trace |
| **Total** | **0.44** | **0.85** | **0.16** | **0.08** | **1.24** | **0.01** |

*Source: CalEEMod, 2023. Note: Totals may not add due to CalEEMod calculation factors and/or 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. Approximately 98 percent of vinyl chloride produced in the United States is used during the manufacture of PVC. Additionally, vinyl chloride is produced during the microbial breakdown of chlorinated solvents (e.g., engine cleaner, degreasing agent, adhesive solvents, paint removers, etc.). Because project implementation would not result in an increase of chlorinated solvents, potential vinyl chloride emissions associated with the project would be less than significant.

**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, 2022h), air pollutants that contribute to regional haze come from natural sources (e.g., wildfires, windblown dust, plants, etc.) and human-made sources (e.g., industrial/manufacturing processes, motor vehicle exhaust, residential wood burning, etc.). 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 stated under Regulatory Context above, 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. No structures that could contain asbestos would be demolished, and the project site is not located in an area with a potential for naturally occurring asbestos (California Department of Conservation, n.d.). 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. Sensitive receptors in the project area include single-family residences adjacent to 4th Avenue.

As stated above, the proposed project does not have any components that would result in significant long-term operational emissions. The 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 impacts during construction. Implementation of **MM 4.3.1** ensures that impacts would be ***less than significant***.

**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. During construction, odors would be emitted from diesel equipment, paints, solvents, fugitive dust, asphalt, and adhesives. Odors from construction would be 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

Past, present, and future development projects contribute to a region's air quality conditions on a cumulative basis; therefore, by its very nature, air pollution is largely a cumulative impact. If a project's individual emissions contribute to exceedance of the NAAQS or the CAAQS, then the project's cumulative impact on air quality would be considered significant.

Implementation of the proposed project combined with future development within the project area could lead to cumulative impacts to air quality. However, all projects in Humboldt County are subject to applicable CARB regulations, State building codes, and NCUAQMD rules and regulations. As documented above, operational emissions and construction-related emissions resulting from the project would not exceed the NCUAQMD referenced thresholds. Implementation of **Mitigation Measure 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 sufficiently watered to prevent fugitive dust from leaving project boundaries and causing a public nuisance or a violation of ambient air quality standards. Watering shall occur as needed, preferably twice daily in the mid-morning and after work is completed each day, with care given to work areas with bare soil,

b. All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance.

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

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

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

f. 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. This provision is enforced by local law enforcement agencies.

g. 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.

h. 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.** 2021. Criteria Air Pollutants. https://www.epa.gov/criteria-air-pollutants. Accessed July 2021.

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## 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 Game or U.S. Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife 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

**Clean Water Act (CWA)**

***Section 404***

Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) jointly with the U.S. Environmental Protection Agency (USEPA) regulates the discharge of dredged or fill material into wetlands and other 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 as well as prior to discharging dredged or fill material into waters of the U.S. Mitigation for the loss of waters is typically required as a condition of permit approval.

Nationwide Permits

Projects that will result in only minimal adverse effects to USACE jurisdictional waters typically qualify for coverage under a Nationwide Permit (NWP). NWPs are general permits issued on a nationwide basis to streamline the authorization of activities that result in minimal individual and cumulative adverse effects on the aquatic environment. The NWPs must be reissued every five years following a full interagency and public interest review.

In order to qualify for a NWP, permittees must comply with all of the terms, general conditions, and regional conditions of the NWP, including any requirements for the submittal of a pre-construction notification (PCN). When a PCN is required, a NWP verification letter is issued. The NWP verification may include additional special conditions to minimize individual and cumulative impacts. The verification is generally valid for two years and may be extended.

Individual Permits

If a project does not qualify for a NWP, an Individual Permit is required. Individual permits include Standard Permits, which are generally more complex in nature and involve notification of the public and commenting agencies, and Letters of Permission, a type of permit issued through an abbreviated processing procedure that includes coordination with federal and state fish and wildlife agencies and a public interest evaluation, but without the publishing of an individual public notice. Individual Permits require preparation of an alternatives analysis that evaluates reasonable alternatives to the project that would avoid or reduce impacts to aquatic resources. Individual permits also generally have more stringent mitigation requirements.

Aquatic resource delineations are conducted on a property to identify the type and extent of waters on the site that are subject to federal jurisdiction. Waters may include rivers, streams, lakes, and ponds, as well as special aquatic sites such as wetlands. The delineation is submitted to the USACE with a request for verification. The type of USACE permit required for a project is based in part on the extent of wetlands and other waters of the U.S. that will be affected by the proposed activity.

***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 (WQC) (or waiver) to ensure that the project will not violate established State water quality standards. In California, when a discharge is proposed to waters outside of federal jurisdiction, the discharge is regulated under the State Porter-Cologne Water Quality Control Act through the issuance of Waste Discharge Requirements (WDRs). The State has a policy of no-net-loss of wetlands and requires mitigation for impacts to wetlands before it issues WQCs or WDRs.

**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 MTBA applies to over 1,000 bird species, including geese, ducks, shorebirds, raptors, songbirds, and other bird species that were near extinction before MBTA protections were put in place in 1918. The MTBA also provides protections for native bird species, 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. The MBTA provides protections for nearly all native bird species in the U.S., including non-migratory birds.

**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.

### Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) protects all marine mammals, including cetaceans (whales, dolphins, and porpoises), pinnipeds (seals and sea lions), sirenians (manatees and dugongs), sea otters, and polar bears within waters of the U.S.

## 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 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 (WDRs) identified in the Report.

### State Water Resources Control Board Wetland Riparian Area Protection Policy and Water Quality Certification Program

In 2019, the State Water Resources Control Board (SWRCB) adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) (SWRCB, 2021a, 2021b). The Procedures consist of four major elements:

1. A wetland definition;
2. A framework for determining if a wetland feature is a water of the State;
3. Wetland delineation procedures; and
4. Procedures for the submittal, review, and approval of applications for WQCs and WDRs for dredge or fill activities.

The WQC Program regulates the removal or placement of materials in wetlands and waterways in the State. The Program protects all waters, but has special responsibility for wetlands, riparian areas, and headwaters because these waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs.

The State's WQC is issued pursuant to Section 401 of the Clean Water Act to certify that the project approved by the USACE Section 404 permit will also meet State water quality requirements. The Program implements the State's no-net-loss policy for wetlands to ensure no overall net loss and long-term gain in the quantity, quality, and permanence of wetland acreage and values. Mitigation for the loss of wetlands could include creating new wetlands and/or preserving/restoring existing wetlands and enhancing their functionality.

### California Endangered Species Act

Under the California Endangered Species Act (CESA), CDFW is responsible for listing and delisting threatened and endangered species, including candidate species for threatened or endangered status. CDFW maintains a list of these species and related 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. The SAA will 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 or 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.

**California Environmental Quality Act (CEQA)**

§15380 of the CEQA Guidelines states that even if a plant or animal is not listed as a special-status species, the species is presumed to be endangered or rare if the species can be shown to meet the following criteria:

> ***Endangered***. A plant or animal is considered endangered when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or
>
> ***Rare***. A plant or animal is considered rare when either:
>
> 1. Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or
> 2. The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the FESA.

## LOCAL

**Humboldt County**

The County's General Plan includes the following Goal, Policies, and Standards that apply to the proposed project:

| Conservation and Open Space Element | | |
|---|---|---|
| **Goal** | BR-G3 | Fish and wildlife habitats protected on a sustainable basis to generate long-term public, economic, and environmental benefits. |
| **Policies** | BR-P2 | Discretionary projects which use federal permits or federal funds on private lands that have the potential to impact critical habitat shall be conditioned to avoid significant habitat modification or destruction consistent with federally adopted Habitat Recovery Plans or interim recovery strategies. |
| | BR-P4 | Development within stream channels shall be permitted when there is no lesser environmentally damaging feasible alternative, and where the best feasible mitigation measures have been provided to minimize adverse environmental effects. Development shall be limited to essential, non-disruptive projects as listed in Standard BR-S6. |
| | BR-P7 | The presence of wetlands in the vicinity of a proposed project shall be determined during the review process for discretionary projects and for ministerial building and grading permit applications, when the proposed building development activity involves new construction or expansion of existing structures or grading activities. Wetland delineation by a qualified professional shall be required when wetland characterization and limits cannot be easily inventoried and identified by site inspection. |
| | BR-P10 | The County shall cooperate with public and private efforts to manage and control noxious and exotic invasive plant species. The County shall recommend measures to minimize the introduction of noxious and exotic invasive plant species in landscaping, grading and major vegetation clearing activities. |
| | BR-P11 | Biological resource maps shall be consulted during the ministerial and discretionary permit review process in order to identify habitat concerns and to guide mitigation for discretionary projects that will reduce biological resource impacts to below levels of significance, consistent with CEQA. |
| | BR-P12 | The County shall request the California Department of Fish and Wildlife, as well as other appropriate trustee agencies and organizations, to review plans for development within Sensitive Habitat, including Streamside Management Areas. The County shall request NOAA Fisheries or U.S. Fish and Wildlife Service to review plans for development within critical habitat if the project includes federal permits or federal funding. Recommended mitigation measures to reduce impacts below levels of significance shall be considered during project approval, consistent with CEQA. |
| | CO-P5 | Support conservation easement programs that protect natural resource and open space assets. Where private and/or nonprofit options do not exist or are not needed, the County may consider accepting voluntary offers of conservation easements that generate economic returns to the landowners and continued resource production, in exchange for permanent protection of natural resource and open space values. |
| **Standards** | BR-S2 | For discretionary projects with potential to impact critical, or sensitive habitats, the County will seek specific recommendations from the appropriate agencies, as applicable to the specific project location, class of development, or natural resource involved. |

| | |
|---|---|
| BR-S6 | Development within stream channels may be approved where consistent with Policy BR-P4 and is limited to the following projects.<br>a. Fishery, wildlife, and aquaculture enhancement and restoration projects.<br>b. Road crossings consistent with Standard BR-S9, Erosion Control, of this section.<br>c. Flood control and drainage channels, levees, dikes, and floodgates.<br>d. Mineral extraction consistent with other County regulations.<br>e. Small-scale hydroelectric power plants in compliance with applicable County regulations and those of other agencies.<br>f. Wells and spring boxes, and agricultural diversions.<br>g. New fencing, so long as it would not impede the natural drainage or wildlife movement and would not adversely affect the stream environment or wildlife movement.<br>h. Bank protection, provided it is the least environmentally damaging alternative.<br>i. Other essential projects, including municipal groundwater pumping stations, provided they are the least environmentally damaging alternative, or necessary for the protection of the public's health and safety. |
| BR-S11 | The County shall follow the U.S. Army Corps of Engineers Wetland Delineation manual in the identification and classification of wetlands which considers wetlands as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. |

## DISCUSSION OF IMPACTS

### Questions A and B

The following evaluation of potential impacts on candidate, sensitive, and/or special-status species is based on record searches and field evaluations completed by SHN and ENPLAN. The record searches included a review of USFWS records for federally listed, proposed, and candidate plant and animal species under jurisdiction of the USFWS; review of NMFS records for federally listed, proposed, and candidate anadromous fish species under jurisdiction of the NMFS; essential fish habitat (EFH) data maintained by the NMFS; review of critical habitat maps for special-status species maintained by the USFWS and NMFS; California Natural Diversity Data Base (CNDDB) records for special-status plants and animals; and California Native Plant Society (CNPS) records for special-status plants. **Appendix B** includes the following:

- SHN Biological and Wetland Assessment prepared for the project in August 2019.
- CDFW Consultation Letter for proposed Public Utility Exemption Harvest in Watercourse Lake and Protection Zones.
- U.S. Fish and Wildlife Service List of Threatened and Endangered Species
- National Marine Fisheries Service List of Threatened and Endangered Species, Critical Habitats, and Essential Fish Habitat
- California Natural Diversity Database Query Summary
- California Native Plant Society Query Summary
- ENPLAN Summary Report: Potential for Special-Status Species to Occur on the Project Site
- List of vascular plants observed: May 14 and 15, 2021; September 24 and 25, 2021

**Field Evaluations**

To determine the presence/absence of special-status plant and animal species, an SHN biologist conducted botanical and wildlife surveys on April 10, April 18, May 10, and June 28, 2019; an ENPLAN biologist conducted botanical and wildlife surveys on May 14, May 15, September 24, and September 25, 2021, and on February 23 and 24, 2024.

The special-status plant species potentially occurring in the study area would have been evident at the time the fieldwork was conducted. The majority of 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.

On September 9, 2021, Nick Simpson, Senior Environmental Scientist Specialist with CDFW, attended a site inspection with the District regarding a proposed public utility exemption for timber harvest operations within a Watercourse Lake and Protection Zone (WLPZ). The inspection was conducted in accordance with 14 CCR §916.9 (s)(6), *Protection and Restoration of the Beneficial Functions of the Riparian Zone in Watersheds with Listed Anadromous Salmonids.* A WLPZ is defined by the California Forest Practice Rules as "*a strip of land, along both sides of a watercourse or around the circumference of a lake or spring, where additional practices may be required for protection of the quality and beneficial uses of water, fish and riparian wildlife habitat, other forest resources and for controlling erosion*."

**Anadromous Fish, Marine Species, Critical Habitat, and Essential Fish Habitat**

NMFS records identify the following anadromous fish species in the USGS Crannell quadrangle: Southern Oregon/Northern California Coast (SONCC) Coho salmon Evolutionarily Significant Unit (ESU) (Federally Threatened [FT]); California Coast (CC) Chinook salmon ESU (FT), Northern California (NC) Steelhead distinct population segment (DPS) (FT), eulachon (FT), and green sturgeon, southern distinct population segment (sDPS) (FT).

NMFS also identifies the following species in the Crannell quadrangle: East Pacific green sea turtle (FT), Olive Ridley sea turtle (FT, Federally Endangered [FE]), leatherback sea turtle (FE), blue whale (FE), fin whale (FE), humpback whale (FE), southern resident killer whale (FE), North Pacific right whale (FE), sei whale (FE), and sperm whale (FE) as occurring in the USGS Crannell quadrangle.

NMFS identifies the following species protected under the Marine Mammal Protection Act in the USGS Crannell quadrangle: cetaceans (whales, dolphins, and porpoises) and pinnipeds (seals and sea lions). Due to lack of habitat, there is no potential for cetaceans or pinnipeds protected under the MMPA to be present in the project site.

NMFS identifies critical habitat in the USGS Crannell quadrangle for SONCC Coho, CC Chinook salmon, NC steelhead, and sDPS green sturgeon. According to NMFS, within the vicinity of the project site, Little River, Railroad Creek, and their tributaries provide critical habitat for CC Chinook salmon and NC steelhead. No work would occur in or near these waters. EFH is defined as those waters and substrate needed by fish for spawning, breeding, feeding, or growth to maturity. NMFS identifies EFH in the Crannell quadrangle for Coho, Chinook salmon, groundfish, and coastal pelagics.

As stated in Section 3.2, the proposed project includes removal of a "Humboldt crossing" over the south branch of Two Creek, a locally named spring-fed stream. Currently, the crossing impedes flows in Two Creek, causing incising, bank erosion, and increased sedimentation. In addition, drainage from a hillside north of the WTP ponds is currently diverted to a roadside ditch, which extends over 1,000 feet before it enters Two Creek. As recommended by CDFW, the flow will be directed under the access road via a culvert that would discharge into the creek near the existing Humboldt crossing. This would put the water in the upstream reach of Two Creek and enhance the biological values of this upper stream reach.

From the project site, Two Creek flows approximately one mile west to the Pacific Ocean. Two Creek is located adjacent to Little River and Maple Creek, which are strongholds for SONCC Coho. According to CDFW, Two Creek is a Class II stream. Other streams in the project site are Class III

streams. Class II streams are defined by CDFW as having aquatic life other than fish, and Class III streams are defined as not supporting aquatic life. Based on consultation with CDFW, it was determined that the project would have no direct impact on anadromous fish species. However, indirect effects on anadromous fish and their habitats could occur during earth-disturbing activities if the eroded soils are washed into downstream waters.

As noted in Section 1.7 (Permits and Approvals), the District is required to obtain coverage under the RWQCB NPDES permit for *Discharges of Storm Water Runoff Associated with Construction Activity,* which requires development of a SWPPP that includes a detailed listing of the potential sources of stormwater pollution and implementation of BMPs to control erosion and sedimentation and prevent damage to streams, watercourses, and aquatic habitat. Measures that may be implemented to minimize erosion 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 off-site; and revegetating temporarily disturbed sites upon completion of construction. **MM 4.4.1** is included to further minimize potential impacts on aquatic species and their habitats.

**Special-Status Plant Species**

Review of the USFWS species list for the project area identified one federally listed plant species, Lassics lupine (FE, State Endangered [SE], Rare Plant Rank [RPR] 1B.1), as potentially being present in the project area. The project area does not contain designated critical habitat for federally listed plant species.

Review of CNDDB records showed that one special-status plant species, beach layia (FE, SE, RPR 1B.1), was reported in the project vicinity in 1937 and has been broadly mapped as occurring in the project area; however, the records indicate that habitat for the species was destroyed with construction of Highway 101, and the species is extirpated from this location.

The following special-status plants also have been broadly mapped in the project area: dark eyed gilia (RPR 1B.2), Lyngbye's sedge (RPR 2B.2), northern clustered sedge (RPR 2B.2), Pacific gilia (RPR 1B.2), seacoast ragwort (RPR 2B.2), and Siskiyou checkerbloom (RPR 1B.2).

The following special-status plant species have been reported within a five-mile radius of the project area: black crowberry (RPR 2B.2), bristle-stalked sedge (RPR 2B.2), coast checkerbloom (RPR 1B.2), cylindrical trichodon (RPR 2B.2), Humboldt Bay owl's-clover (RPR 1B.2), Oregon coast paintbrush (RPR 2B.2), pink sand-verbena (RPR 1B.1), seaside pea (RPR 2B.1), Tracy's romanzoffia (RPR 2B.3), twisted horsehair lichen (RPR 1B.2), western lily (FE, SE, RPR 1B.1), and Wolf's evening-primrose (RPR 1B.1). One non-status species was identified within a five-mile radius of the project area: running pine (RPR 4.1).

The CNPS Inventory identified the following additional special-status plant within the U.S. Geologic Survey (USGS) Crannell 7.5-minute quadrangle: white-flowered rein orchid (RPR 1B.2). The following additional non-status plants are reported within the quadrangle: American glehnia (RPR 4.2), Bolander's reed grass (RPR 4.2), California pinefoot (RPR 4.2), heart-leaved twayblade (RPR 4.2), leafy-stemmed miterwort (RPR 4.2), Methuselah's beard-lichen (RPR 4.2), nodding semaphore grass (RPR 4.2), Pacific golden saxifrage (RPR 4.3), sea-watch (RPR 4.2), and trailing black currant (RPR 4.3).

The potential for each special-status plant species to occur in the project site is evaluated in the ENPLAN Summary Report: Potential for Special-Status Species to Occur on the Project Site **(Appendix B).** As documented in the report, no special-status plant species were observed during the botanical surveys, and none are expected to be present. A list of vascular plant species observed during the botanical surveys is provided in **Appendix B**.

**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 site: Pacific marten - coastal distinct population segment (DPS) (FT), marbled murrelet (FT, SE), northern spotted owl (FT, State Threatened [ST], State Species of Special Concern [SSSC]), western snowy plover (FT), yellow-billed cuckoo (FT),

tidewater goby (FE), Northwestern pond turtle (Federally Proposed Threatened [FPT], SSSC), and monarch butterfly (Federal Candidate [FC]). The project area does not contain designated critical habitat for federally listed wildlife species.

CNDDB records show that no special-status wildlife species have been reported within the project site. The following special-status wildlife species have been broadly mapped within the project area: Fisher – west coast DPS (SSSC), Foothill yellow-legged frog – north coast DPS (SSSC), and western bumble bee (State Candidate Endangered [SCE]).

The following special-status wildlife species have been reported within a five-mile radius of the project area: bank swallow (ST), coast cutthroat trout (State Species of Special Concern [SSSC]), fork-tailed storm petrel (SSSC), longfin smelt (FC, ST), northern red-legged frog (SSSC), Pacific tailed frog (SSSC), southern torrent salamander (SSSC), steelhead-northern California DPS winter run (FT), tufted puffin (SSSC), western pond turtle (SSSC), and white-footed vole (SSSC).

The following non-status wildlife species have also been reported within a five-mile radius of the project area: American peregrine falcon, double-crested cormorant, Humboldt mountain beaver, long-eared myotis, North American porcupine, obscure bumble bee, osprey, rhinoceros auklet, Steller sea lion, and western pearlshell.

The potential for special-status animal species to occur in the project site is evaluated in **Appendix B**. As documented in Appendix B, a northern red-legged frog was observed adjacent to one of the ponds during field surveys, and there is also a potential for Pacific tailed frog and southern torrent salamander to be present in the project site. Additionally, historic habitat for two special-status bumble bees is present within the project area.

***Northern Red-Legged Frog (Rana aurora)***

The breeding habitat for the northern red-legged frog (NRLF), a SSSC, typically consists of permanent or temporary water bordered by dense grassy or shrubby vegetation. Habitat used by post-metamorphic frogs consists of patches of dense grassy or shrubby vegetation (e.g., willow thickets and dense sedge swales) that maintain significant substrate moisture. In California, the dense undergrowth created by sword ferns and sedges along streamside flats in coastal redwood forest is often used by adults and sub-adults. When disturbed, frogs remain motionless, but if threatened, they will take refuge in the brush or water.

Breeding occurs most frequently in January and February but can occur as early as October with large numbers of frog hatching in November and December in Oregon and Northern California. Once breeding is complete, adults return to nearby moist forests and riparian areas. Egg masses are a large gelatinous oval cluster, which are dispersed before attaching to vegetation under the water. Tadpoles generally emerge from egg clusters after about four weeks and transform into juvenile frogs in three to five months. Juveniles stay at their birth pond for a few days to weeks, before moving into nearby moist dense vegetation. Adults most likely hibernate during winter months in the northern part of the range and at higher elevations.

According to CNDDB records, multiple occurrences of NRLFs have been reported in the surrounding area, some as recent as 2014. As noted above, a single NRLF was observed adjacent to one of the two ponds on site during the field survey. Multiple water features in the project site, including Two Creek and two ponds, provide suitable habitat for the NRLF. Work related to removal of the Humboldt crossing on Two Creek has the potential to directly and indirectly affect the NRLF.

To avoid/minimize potential impacts to NRLFs, **MM 4.4.2** requires that a qualified biologist conduct a pre-construction survey prior to the start of work within 50 feet of the Humboldt crossing work area. Pre-construction surveys shall be conducted on each day of work in this area. Should eggs, juveniles, or adults be observed during the surveys or by construction personnel at any time, all work shall be stopped in the immediate vicinity until a qualified biologist can relocate the individuals or egg masses to a suitable habitat upstream or downstream of the work area.

**MM 4.4.3** requires that prior to commencement of any earth disturbance, all contractors, work crews, and any onsite personnel must receive training from a qualified biologist regarding special-status species and their habitats that could be present in the study area, laws and regulations that protect these areas, procedures to be implemented in the event that these species are encountered during construction, and the consequences of noncompliance with those laws and regulations. The training will address the NRLF among other special-status species.

***Pacific Tailed Frog (Ascaphus truei)***

The Pacific tailed frog is a SSSC that occurs in coastal Northern California and inland to the Cascade Mountains. It inhabits cold perennial streams in conifer-dominated habitats, including coast redwood, Douglas-fir, Klamath mixed-conifer, and ponderosa pine habitats.

This frog also occurs in montane hardwood-conifer habitats. Pacific tailed frogs occur more often in mature or late-successional stands than in younger stands. During the day, adults seek cover under submerged rocks and logs in the stream or occasionally under similar surface objects close to the stream. Reproduction is aquatic and, on the coast, occurs in the spring and summer. In the project site, Two Creek provides potentially suitable habitat for the Pacific tailed frog.

**MM 4.4.2** requires pre-construction surveys to be completed prior to the start of work on each day that work occurs in areas where Pacific tailed frog could be present. The pre-construction worker awareness training required by **MM 4.4.3** will also address the Pacific tailed frog.

***Southern Torrent Salamander (Rhyacotriton variegatus)***

The southern torrent salamander, a SSSC, inhabits cold perennial headwater streams and seeps in old-growth coniferous forests in the northern part of the Coast Ranges and in the western portion of the Klamath Mountains. Preferred streams are well shaded and often have a steep gradient. Larvae are often found in rocky portions of such streams, while adults are generally found among moss-covered rocks in or near the splash zone. The species is mainly aquatic, although moist, riparian areas provide non-reproductive habitat. Reproduction is aquatic and occurs throughout the year, primarily in August and September. In the project site, Two Creek provides potentially suitable habitat for the southern torrent salamander.

**MM 4.4.2** requires pre-construction surveys to be completed prior to the start of work on each day that work occurs in areas where southern torrent salamander could be present. The pre-construction worker awareness training required by **MM 4.4.3** will also address the southern torrent salamander.

***Crotch bumble bee (Bombus crotchii), State Candidate Endangered***

Crotch bumble bees occur in California, southwestern Nevada, and Baja California. The bees inhabit open grassland and scrub habitats. Important food plants include *Asclepias, Chaenactis, Lupinus, Phacelia,* and *Salvia*. Colonies are annual; only mated queens overwinter. Queens emerge from hibernation in early spring, begin foraging, and search for a nest site. Nesting occurs underground. The queen provides all care for the colony until the first workers emerge and assist with these duties. The flight period for queens is from late February to late October, peaking in early April, with a second pulse in July. The flight period for workers and males is from late March through September, peaking in early July.

While the project area is within the historic range for the Crotch's bumble bee, it is not within the active habitat range for the species (CDFW, 2023). CNDDB, Bumble Bee Watch, and iNaturalist indicate that no records of the Crotch bumble bee have been found within a five-mile-radius of the project area. Additionally, there is a lack of floral resources on-site, and the species is not anticipated to forage within the project area. Therefore, it is unlikely that Crotch's bumble bee will be present on the project site, or adversely affected by project implementation.

***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."

While the project area is within the western bumble bee's historic range, it is not within the active habitat range for the species (CDFW, 2023a). Bumble Bee Watch and iNaturalist indicate that no records of the western bumble bee have been found within a five-mile-radius of the project area. CNNDB records show one record of the western bumble bee within a five-mile radius of the project site; however, the exact location is unknown and it was broadly mapped within 8 miles of the Arcata area in 1968. Additionally, there is a lack of floral resources on-site, and the species is not anticipated to forage within the project area. Therefore, it is unlikely that the western bumble bee will be present on the project site, or adversely affected by project implementation.

**Natural Communities and Sensitive Habitats**

Review of CNDDB records did not identify any sensitive natural communities within a five-mile radius of the project site. Field investigations conducted by SHN on April 3, 10, and 18, 2019, identified the following communities at the WTP site: redwood forest community, red alder forest, mixed woody and herbaceous vegetation, and developed with a redwood canopy (SHN, 2019). An ENPLAN biologist verified the presence of these communities on May 14, May 15, September 24, and September 25, 2021, and on February 23 and 24, 2024.

As discussed in Section 4.2, proposed improvements at the WTP site would result in the removal of approximately 81 second- or third-growth trees with a diameter at breast height (DBH) of 6 inches or greater. Of the trees marked for removal, 77 are native conifers and 4 are native broadleaf species; 42 of the trees to be removed are redwoods and, of these redwoods, 25 are mature second-growth trees with a DBH of 30 inches or greater. Another 5 trees would be removed to accommodate the electrical line improvements (four alders ≤18" DBH and one unstable 44" DBH spruce).

Many of the smaller diameter Sitka spruce, Douglas-fir, and redwood trees are suppressed trees (overtopped trees) with crowns below the general level of the canopy that receive no direct light. Due to the lack of light in the forest understory, these trees are not likely to persist in the forest stand on-site. In addition, the majority of mature redwoods proposed for removal are the result of stump sprouting and are grouped tightly together. Removal of these trees will temporarily create a gap in the forest canopy; however, adjacent residual mature redwood tree crowns will rapidly fill the gap.

The significance of natural community removal can be addressed based on the sensitivity/rarity of the affected community as well as by the overall value of the community for wildlife and ecological purposes. SHN determined that the mixed woody and herbaceous vegetation association on the treatment plant site is not a sensitive natural community. Likewise, the red alder forest association (64.410.00) on the water treatment plant site is not a sensitive natural community. However, other red alder forest alliances are sensitive (including a red alder/*Rubus* alliance near the well site). Removal of four alders to facilitate electrical line improvements would temporarily affect a sensitive red alder /*Rubus* alliance but would not result in permanent conversion; the impact on this natural community would be less than significant.

The redwood forest community in the study area most closely resembles the *Sequoia sempervirens*/ *Polystichum munitum* association (86.100.25) described by CDFW. As documented in the *California Natural Communities List* (CDFW, 2022), the redwood forest and woodland association is considered sensitive by CDFW. Removal of redwood trees to facilitate construction of the proposed project would result in a direct permanent impact to the redwood forest community. To mitigate the loss of one acre of redwood forest, **MM 4.4.4** requires the District to implement one of the following measures: acquire two acres (2:1 ratio) of property in the Luffenholtz Creek-Frontal Pacific Ocean watershed and record deed restrictions to retain the property in open space condition in perpetuity; establish a conservation easement covering a minimum of two acres (2:1 ratio) of redwood forest in the Luffenholtz Creek-Frontal Pacific Ocean watershed in Humboldt County, establish a conservation easement covering a minimum of three acres (3:1 ratio) of redwood forest outside of the Luffenholtz

Creek-Frontal Pacific Ocean watershed in Humboldt County, or contribute an appropriate compensation fee to a CDFW-approved redwood conservation fund to protect a minimum of three acres (3:1 ratio) of redwood forest in Humboldt County. Implementation of **MM 4.4.4** would ensure the proposed project's impact on the sensitive natural community is less than significant.

**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 4.4.5**, 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.

**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 Agriculture 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. Noxious 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 unwashed 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 clean 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.

**Conclusions**

As documented above, implementation of **MM 4.4.1** through **MM 4.4.6** and BMPs for erosion and sediment control ensures that the project's potential direct and indirect impacts on special-status species and their habitats, and sensitive natural communities is ***less than significant.***

**Question C**

SHN prepared a Biological and Wetland Assessment for the proposed project in August 2019 (included in **Appendix B**). Field investigations were conducted on April 3, 10, and 18, 2019, to identify wetlands and other waters of the U.S. and State in the project site. As a result of the field delineation effort, five features (~0.10 acres) were mapped within the study area boundary (~3.6 acres).

The 2019 study area boundary covered improvements at the District's existing 4th Avenue Well site (APNs 524-133-001, 514-132-007, and 514-132-008), and a portion of the District's WTP site (APN

513-181-014). Due to changes in the project proposal, the study area boundary was expanded to include the 4th Avenue road corridor, additional lands on the District's WTP site, and a staging area at the Westhaven Community Church parking lot (APN 514-015-006 and -007).

ENPLAN conducted a supplemental wetland delineation addressing the extended study area. Field investigations of the revised study area were conducted on May 14 and 15, 2021, and September 24 and 25, 2021. In addition to the features previously identified by SHN, ENPLAN mapped 11 new features within the revised study area boundary. Most of these features are streams and ditches in the 4th Avenue road corridor. Additionally, one seasonal wetland and one perennial stream mapped by SHN now fall outside of the revised study area boundary. Maps depicting soils, wetlands, and other waters of the U.S. and State are included in **Appendix C.**

Features mapped by ENPLAN and SHN fall into four categories: constructed ditches, perennial streams, intermittent streams, and seasonal wetlands. The constructed ditches are located primarily along roadways and intercept sheet flow and drain roadside runoff. One of the constructed ditches (7:CD, **Figure 5 in Appendix C**) originates on the WTP site. The upper reach of the ditch appears to carry water only during storm events. During the May 2021 site visit, the lower portion of the ditch had water that arose from seepage within the ditch; therefore, the lower portion of the ditch appears to be a Relatively Permanent Water. All the water carried by the constructed features dissipates after a short distance or is conveyed through culverts beneath driveways or roadways.

One of the two perennial streams (1:PS, **Figure 2 in Appendix C**), originates north of the study area boundary and runs parallel to 4th Avenue until it dissipates into the north branch of Two Creek, eventually flowing one mile west to the Pacific Ocean. Another perennial stream (8:PS and 10:PS, **Figure 5, Appendix C**) is located south of the water treatment plant and is fed by springs as well as outflow from the two ponds located to the east. The ponds are fed by Two Creek, a spring-fed perennial stream.

The two intermittent streams on-site are natural drainages. One intermittent stream feature (6:IS, **Figure 5 in Appendix C**) is fed by off-site waters from the north and a constructed ditch; the intermittent stream flows south to a culvert and feeds into another intermittent stream feature (5:IS, **Figure 5 in Appendix C**).

One seasonal wetland (9:SW, **Figure 5 in Appendix C**) is a low depression located adjacent to a constructed ditch that retains surface runoff. Four seasonal wetlands (11:SW through 14:SW, **Figure 5 in Appendix C**) are located on either side a perennial stream and adjacent the existing Humboldt crossing. These four wetlands receive water from occasional flood flows and subsurface flows from the perennial stream. Each wetland is less than 0.05 acre.

Seven features appear to be subject to USACE jurisdiction based on the Rapanos definition of Waters of the U.S.: three perennial stream features (1:PS, 8:PS, and 10:PS) and four wetlands (11:SW through 14:SW).

The State of California claims jurisdiction over all surface waters, which would include all of the features mapped in the study area (see **Appendix C**). The extent of federal jurisdiction will be determined by USACE staff in accordance with the rules that are in effect at the time of jurisdictional determination. The extent of State jurisdiction will be determined by Regional Water Quality Control Board staff in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

The project would temporarily impact wetlands and other waters due to trenching through these features to install waterlines, construct improvements at the water treatment plant, and remove the Humboldt crossing. To the extent feasible, final design of the improvements will avoid direct impacts to wetlands and other waters. However, one ditch with relatively permanent flow would be filled to facilitate construction of the new WTP building. It is anticipated that less than a tenth of an acre of wetlands or other waters will be impacted by project implementation. **MM 4.4.7** is included to require that prior to commencement of construction activities, exclusionary flagging or other markers shall be installed around wetlands and other jurisdictional waters that are to be avoided.

In addition, as described in Section 3.2 (Project Components/Physical Improvements), the project includes removal of an on-site Humboldt crossing that currently impedes flows in Two Creek, causing incising, bank erosion, and increased sedimentation. Further, drainage from a hillside north of the ponds would be directed via a culvert into Two Creek near the existing Humboldt crossing, enhancing the biological values of this upper reach of the creek. Redirection of flow to the upstream reach of Two Creek and removal of the Humboldt crossing are not necessary actions for implementation of the proposed project; however, these improvements are included in the project plans to mitigate the loss of waters resulting from project implementation.

The project is subject to conditions of a CWA Section 404 permit as required by the USACE. It is anticipated that the proposed project will qualify for a notifying USACE Nationwide Permit 39. A project requiring a USACE Section 404 permit is also required to obtain a State WQC (or waiver) to ensure that the project will not violate established State water quality standards. If a discharge is proposed to waters outside of federal jurisdiction, the discharge is instead regulated under the State Porter-Cologne Water Quality Control Act through the issuance of WDRs. A Streambed Alteration Agreement (LSAA) from CDFW is also required for work in certain waters. Among other conditions, the USACE permit requires that temporary fills be removed in their entirety and the affected areas be returned to preconstruction contours to maintain the original hydrology of the site. In addition, temporarily disturbed areas must be revegetated to minimize erosion, as appropriate.

Compliance with the conditions of resource-agency permits, use of BMPs for spill prevention and erosion control, and implementation of **MM 4.4.7** ensures that the project's potential impacts on wetlands and other waters of the U.S. and State is ***less than significant***.

***PG&E Improvements***

Additional field surveys covering the PG&E corridor were conducted by an ENPLAN biologist on February 23 and 24, 2024 (refer to **Figures 13a and 13b**). As discussed above, work would involve replacement of two power poles, installation of one new anchor pole and two new power poles, and installation of guy anchors for these poles and at two other existing pole locations. The new anchor pole would be located in an upland situation. One new power pole, one replacement power pole, and their associated guy anchors would be located in or immediately adjacent to wetlands. The other two power poles would involve work near ditches. Permanent impacts on waters would be negligible, limited to the footprint of one power pole. The extent of temporary impacts is also expected to be minimal, but is dependent on the work methods employed by PG&E.

The California Public Utilities Commission, as CEQA lead agency for PG&E projects, is responsible for completing CEQA review, and PG&E is responsible for obtaining necessary resource-agency permits for the improvements identified in **Figures 13c through 13h**, including the permits identified above and a Coastal Development Permit from the California Coastal Commission. Compliance with permit conditions and mitigation measures adopted by the CPUC would ensure that the PG&E improvements would result in less-than-significant impacts on wetlands and other waters.

**Question D**

Wildlife movement patterns can be disrupted by barriers (e.g., dams, reservoirs, highways, altered stream flows, urban development, habitat conversion, etc.) that impede the movement of migratory fish, birds, deer, and other wildlife species. In addition, during construction, human activity in the project area may impede the movement of wildlife. CDFW does not identify any critical summer or winter ranges, fall holding areas, or fawning grounds for deer in the project area (CDFW, 2021a).

Two Creek supports numerous wildlife species, and streamside vegetation provides important nesting habitat for a variety of bird species and small mammals. In addition, riparian habitats serve as important dispersal corridors for mammals, turtles, and amphibians. Work in Two Creek would temporarily impede the movement of wildlife that use the stream channel as a migration corridor; however, this impact is not significant because it would be temporary and wildlife species would alter their routes to move around the construction areas or use the stream corridors during non-working hours. Further, removal of the Humboldt crossing would be considered beneficial in the long-term because it would reduce bank erosion and sedimentation and improve flows in Two Creek by restoring the creek to natural conditions, thereby improving aquatic habitat downstream.

There is a slight possibility that wildlife could be trapped in open trenches and pipes during construction. **MM 4.4.8** is included to prevent the inadvertent entrapment of wildlife during construction. Although improvements on the WTP property include construction of a new WTP building and water tank, wildlife species would be able to alter their routes to move around the building and tank.

Therefore, because the proposed project would not significantly impede the movement of wildlife in the long-term, construction-related activities that may impede the movement of wildlife would be temporary and would cease at completion of the project, and **MM 4.4.8** would prevent the inadvertent entrapment of wildlife, impacts would be ***less than significant.***

**Question E**

As documented above, the project is consistent with the County's General Plan policies and standards identified under Regulatory Context with implementation of **MM 4.4.1** through **MM 4.4.8**. There are no other local policies or ordinances protecting biological resources that apply to the proposed project. 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, 2021b). Therefore, there would be ***no impact.***

## CUMULATIVE IMPACTS

Cumulative projects in the site vicinity, including growth resulting from build-out of the County's General Plan, are anticipated to permanently remove plant and wildlife resources. Continued conversion of existing open space to urban development may result in the loss of sensitive plant and wildlife species native to the region, habitats for such species, wetlands, wildlife migration corridors, and nursery sites.

As noted in Section 3.2 above, PG&E powerline extension improvements would require tree removal and/or vegetation trimming outside of the WTP site, possibly resulting in indirect and direct impacts to biological resources. However, PG&E, along with other development projects in the County, is required to comply with federal, State, and local regulations as described under Regulatory Context above. In addition, all projects are required to implement BMPs to control erosion and sedimentation 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 4.4.8** avoids, reduces, or mitigates 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** In order to avoid/minimize potential impacts on special-status species and their habitats associated with Two Creek, the following measures shall be implemented throughout construction:

a. No earth-disturbing activities shall occur in the winter except during extended dry periods and where saturated soil conditions do not exist.

b. No trees shall be removed within the channel of Two Creek.

c. Trees shall be felled away from Two Creek where feasible.

**MM 4.4.2 Conduct Pre-Construction Surveys for Special-Status Aquatic Species**

Prior to the start of earth-disturbing activities within 50 feet of the Humboldt crossing work area, a qualified biologist shall conduct a survey for special-status species that could be present in the area, including the northern red-legged frog (NRLF), the Pacific tailed frog, and southern torrent salamander.

Pre-construction surveys shall be conducted on each day that work occurs in this area. The survey shall include an evaluation of all portions of the work area and an appropriate upland buffer. Should eggs, juveniles, or adults of the NRLF, Pacific tailed frog, or southern torrent salamander be observed during the surveys or by construction personnel at any time, all work shall be stopped in the immediate vicinity until a qualified biologist can relocate the individuals or egg masses to a suitable habitat upstream or downstream of the work area.

**MM 4.4.3 Conduct Worker Environmental Awareness Program**

Prior to commencement of any earth disturbance (e.g., clearing, grading, trenching, etc.), all contractors, work crews, and any onsite personnel shall receive training from a qualified biologist regarding protective measures for special-status animal species and sensitive habitats that could exist in the project area. If new personnel are added to the project, the Westhaven Community Services District shall ensure that they receive the mandatory training before starting work. At a minimum, the training shall include the following:

a. A review of the special-status species that could occur in the project study area, the life history and habitat requirements for each species, the locations where the species could occur, the laws and regulations that protect these species, procedures to be implemented in the event that these species are encountered during construction, and the consequences of noncompliance with those laws and regulations.

b. A review of wetlands and other waters of the U.S. and State that occur in the study area and the location of the sensitive natural communities.

c. A review of applicable mitigation measures, standard construction measures, best management practices, and resource-agency permit conditions that apply to the protection of special-status species and sensitive habitats.

**MM 4.4.4 Mitigate Impacts to Sensitive Natural Communities**

To mitigate the loss of redwood forest, the Westhaven Community Services District (District) shall implement one of the following measures:

a. **Option 1**: The District shall acquire a minimum of two acres (2:1 ratio) of redwood forest in the Luffenholtz Creek-Frontal Pacific Ocean watershed and record deed restrictions on the property to ensure that the property remains in an open space condition in perpetuity. The deed restrictions shall be recorded in the office of the Humboldt County Clerk-Recorder prior to completion of the project. The restrictions shall include, but not be limited to, the following provisions:

    i. With limited exceptions described in (ii) below, the land shall not be developed with residential, commercial, industrial, or other structures/uses that could significantly impair or interfere with the Conservation Values of the property. Conservation Values of the property include significant forest, watershed, and open space opportunities for public education and recreation and other fish and wildlife habitat resources, the preservation and restoration of which is recognized by the State of California and the people of Humboldt County as providing a public benefit.

    ii. Allowable uses of the property include public trail construction and public access amenities; educational and scientific purposes; fire fuel reduction activities in accordance with local fire regulations or as directed by the local fire authority;

maintenance of existing overhead and underground utility facilities; maintenance and management tasks such as weed removal and trash pick-up; and habitat restoration activities, provided that no mature, healthy trees are removed except solely to control or prevent hazards, disease, or wildfire. The application of herbicides, pesticides, defoliants, or chemical fertilizers is prohibited.

iii. The District shall be responsible for funding and completing maintenance activities and for ensuring compliance with the restrictions.

iv. The deed restrictions shall run with the land and bind any successors and assigns in interest.

b. **Option 2:** The District shall fund the purchase of a conservation easement to be conveyed to/held by a third-party conservation-oriented entity as defined by California Civil Code §815.3(a). The holder of the conservation easement shall be responsible for ensuring the long-term management and maintenance of the protected lands. The conservation easement shall be recorded in the office of the Humboldt County Clerk-Recorder prior to completion of the project. The conservation easement shall be subject to the following provisions:

i. The conservation easement shall cover a minimum of two acres (2:1 ratio) of redwood forest if located in the Luffenholtz Creek-Frontal Pacific Ocean watershed or three acres (3:1 ratio) of redwood forest if located outside of the Luffenholtz Creek-Frontal Pacific Ocean watershed in Humboldt County.

ii. In support of the conservation easement, a detailed management plan shall be developed and implemented by the holder of the conservation easement to provide for the long-term management and maintenance of the protected lands. Establishment of an endowment to fund the management and maintenance activities may be appropriate.

iii. The management plan shall address allowable land uses and intensities of such use, provide for periodic inspection of the protected lands, address the establishment and maintenance of protective measures such as fencing, identify maintenance and management tasks such as weed removal and trash pick-up, and provide for remediation of the effects of unauthorized activities.

iv. The conservation easement shall run with the land and bind any successors and assigns in interest.

c. **Option 3:** The District shall contribute an appropriate compensation fee to a California Department of Fish and Wildlife (CDFW)-approved redwood conservation fund. The fee shall be sufficient to protect a minimum of three acres (3:1 ratio) of redwood forest in Humboldt County.

**MM 4.4.5** **Avoid Impacts on Special-Status Birds and Nesting Birds**

In order to avoid impacts to special-status birds protected under the California Endangered Species Act (CESA) and nesting migratory birds and/or 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 through 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.

The survey shall consider 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 to the CDFW 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, the Westhaven Community Services District shall consult with the USFWS and CDFW regarding appropriate action to comply with the CESA, Migratory Bird Treaty Act and California Fish and Game Code §3503 and §3503.5. 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 4.4.6 Avoid/Minimize Introduction and Spread of Noxious Weeds**

The potential for introduction and spread of noxious weeds shall 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.
- Requiring the construction contractor to thoroughly inspect and clean all construction equipment (e.g., excavators, bulldozers, backhoes, dump trucks, etc.) at a commercial wash facility prior to entering and upon leaving the job 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.

**MM 4.4.7 Minimize Effects to Wetlands**

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 wetlands and other waters designated for avoidance. The marker/flag locations shall be determined by a qualified biologist in consultation with the project engineer and the Westhaven Community Services District. No construction activities (e.g., clearing, grading, trenching, etc.), including 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 4.4.8 Avoid Inadvertent Entrapment of Wildlife**

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 consider 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. 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; and
6. Neglect of a property that causes its deterioration; and the transfer, lease, or sale of the property.

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:

a. The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR).
b. 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).
c. 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 as supported by 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

### Humboldt County

The County's General Plan includes the following Goal, Policies, and Standards that apply to the proposed project:

| **Conservation and Open Space Element – Cultural Resources** | | |
|---|---|---|
| **Goal** | CU-G1 | Protected and enhanced significant cultural resources, providing heritage, historic, scientific, educational, social, and economic values to benefit present and future generations. |

| | | |
|---|---|---|
| **Policies** | CU-P1 | The potential for impacts to significant cultural resources shall be identified during ministerial permit and discretionary project review, impacts assessed as to significance, and if found to be significant, protected from substantial adverse change per California Public Resources Code (PRC) §5020.1. |
| | CU-P2 | Native American Tribes shall be consulted during discretionary project review for the identification, protection, and mitigation of adverse impacts to significant cultural resources. Consultation on ministerial permits shall be initiated if it has been determined the project may create a substantial adverse change to a significant cultural resource. At their request, Tribes shall be afforded the opportunity to review and provide comments to the County early in project review and planning (screening) about known or potential Tribal cultural resources located in project areas within their respective tribal geographical area of concern. |
| | CU-P3 | Historic preservation agencies and organizations shall be consulted during discretionary project review for the identification, protection, and mitigation of adverse impacts to significant cultural resources. These include, but may not be limited to, the County's Cultural Resources Advisory Committee, Humboldt County Public Works Department and the Planning and Building Divisions, the Northwest Information Center of the California Historical Resources Information System (NWIC), the California Office of Historic Preservation, the Native American Heritage Commission, local historical societies, museums, colleges and universities, and incorporated cities historic preservation commissions or committees for their respective LAFCO sphere of influence, and local historians, cultural resources consultants, and historic preservation staff affiliated with various state and federal agencies. |
| | CU-P4 | Projects located in areas known, or suspected to be archeological sites or Native American burial sites shall be conditioned and designed to avoid significant impacts to significant sites, or disturbance or destruction to Indian burial grounds. Preserving Native American remains undisturbed and in place shall be selected as the preferred alternative unless substantial factual evidence is presented demonstrating that no alternative(s) are feasible. Conditions of approval shall include standard provisions for post-review inadvertent archaeological discoveries and discovery and respectful treatment and disposition of Native American remains with or without funerary objects in accordance with state law (Health and Safety Code (HSC) §7050.5 and PRC §5097.98). |
| | CU-P5 | Substantial adverse changes to significant cultural resources shall not be allowed through a ministerial or discretionary action unless:<br>A. The cultural resource has been found not to be significant based on consultation with culturally affiliated Native American Tribe(s) and other historic preservation agencies and organizations as required by CU-P2; or<br>B. There is an overriding public benefit from the project, and compensating mitigation to offset the loss is made part of the project. |
| | CU-P6 | Mitigation measures shall be required for any permitted project or County action that would adversely impact significant cultural resources. |

| | | |
|---|---|---|
| **Standards** | CU-S5 | A professional archaeologist meets the Secretary of the Interior's Professional Qualification standards for Archaeology Principal Investigator and the explicit education and experience qualification standards adopted by the Society for California Archaeology in 2012. The professional archaeologist shall make a good faith effort to inform and include the descendant community in all aspects of their work, as applicable, to respect sensitive or confidential information, and to integrate the community's policies and practices in respectful handling of archaeological material. |
| | CU-S6 | For discretionary projects, a records check will be conducted by staff, and if no listing or survey for eligibility has been done, an initial screening will be conducted to determine whether there is a potential for significant historic structures, buildings, or districts to be significantly impacted by the project. Where it is found that there is a potential for significant adverse impacts, an historic architectural resources report meeting the Secretary of the Interior's Standards for Historic Preservation prepared by a qualified professional shall be required. The report shall assess the presence, extent, condition, and explicit significance values of all extant cultural resources and the likely impact upon such resources found to qualify as significant historical resources under CEQA. The report shall include recommendations for avoiding and/or mitigating identified significant adverse impacts. |
| | CU-S7 | The conclusions, findings and recommendations of the Historic Architectural Report and other types of cultural resources reports shall be evaluated during the project review process including referral for comments from the advisory Cultural Resources Committee. The Cultural Resources Committee will make recommendations on cultural resources to County staff and the Planning Commission. Applicants shall be encouraged to plan projects to avoid substantial adverse change to significant cultural resources, otherwise*,* mitigation measures shall be required to lessen the impacts to a less than significant level*.* |

## DISCUSSION OF IMPACTS

### Questions A and B

A Cultural Resources Inventory Report (CRI) was completed for the proposed project by DZC Archaeology & Cultural Management in September 2021 and updated in November 2023 to identify the project's effects on cultural resources. The study included a records search, Native American consultation, and field evaluation.

The records search included review of records from the Northwest Information Center of the California Historical Resources Information System (NWIC/CHRIS) at California State University, Sonoma; and a review of historic maps, the *National Register of Historic Places, California Register of Historical Resources*, *California Points of Historical Interest, California Inventory of Historic Resources, California Historical Landmarks*, *Handbook of North American Indians, Vol. 8, California, and Historic Spots in California.*

**Area of Potential Effects (APE)**

The APE boundaries were devised in consultation with PACE Engineering, based on the project design. The APE encompasses ~9.8 acres and includes areas for staging and construction access, as well as sufficient area for construction. The vertical APE is based on the planned depths of excavations for the project and is associated with the potential for buried cultural resources. The maximum depth of excavation for the majority of the improvements would be six feet. The water tank pad excavation would involve cuts extending up to 16 feet below original grade.

**Records Search**

Research at the NWIC/CHRIS was conducted on July 26, 2021, and September 26, 2023, and covered an approximate quarter-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. Ten archaeological surveys have previously been conducted within a quarter-mile radius of the APE, including nine within the proposed project's APE. Eight of the reports are regional studies, and one addressed a timber harvest plan.

No previously recorded archaeological sites have been recorded within a quarter-mile radius of the APE. Review of the NRHP, the CRHR, the California Inventory of Historic Resources, and the California Historical Landmarks identified no other historic properties within the search radius.

**Native American Consultation**

On February 13, 2019, Westhaven Community Services District received a written request from the Karuk Tribe to be notified of proposed projects in their geographical area; according to the map included in the letter from the Karuk Tribe, the project site is not located within the Tribe's geographic area. Therefore, consultation pursuant to PRC §21084.2 (AB 52, 2014) is not required for the proposed project.

In response to ENPLAN's request for information, on July 22, 2021, the Native American Heritage Commission (NAHC) conducted a search of the Sacred Lands File; the search did not reveal any known Native American sacred sites in the project area. The NAHC provided contact information for several Native American representatives and organizations, who were contacted by DZC on August 20, 2021, with a request to provide comments on the proposed project. No responses were received from Native American tribal representatives.

**Field Evaluation**

Archaeological fieldwork took place on August 17, 2021, and September 11, 2023. The APE was surveyed in transects of 10 meters or less. A total of 9 acres received intensive archaeological survey. The remaining 0.80 ac was inaccessible due to dense vegetation typical of a second-growth redwood forest, and brambles.

Ground surface visibility throughout the APE ranged from 10-20 percent and horizontal visibility ranged from 35-75 percent. Constraints to visibility in general were predominantly dense vegetation and thick forest duff, as well as imported gravel surfaces in the staging area. The residential areas were paved or graveled roads and contained improvements such as driveways, fences, and landscaping which obscured or prevented ground visibility.

The periphery of the roadside areas was predominantly very dense vegetation, often forming a solid wall at the edge of the road. Landform modification in the form of cut banks are commonplace in the study area. Subsurface soils observed as a result of rodent activity were inspected for cultural resources. Additionally, the ground was scraped clear of vegetation in 30-meter intervals to reveal the mineral surface.

**Conclusions**

As a result of the CRI conducted by DZC, one isolated artifact (a partially buried railroad rail remnant), two isolated features (an upright milled wood post pierced by a threaded iron bolt and a "Humboldt crossing" of 4-5 redwood logs), and a built environment industrial facility (the water treatment system) were identified in the APE.

The CRI concludes that none of these resources is eligible for listing in the NRHP or the CRHR. Based on the geomorphological and topographic characteristics of the project site, the results of the records and literature search, and the age of the soils mapped in the area, the APE exhibits a moderate potential for surface and buried cultural resources. **MM 4.5.1** is included to address the inadvertent discovery of cultural resources and ensure that impacts are ***less than significant***.

**Question C**

The APE does not include any known cemeteries, burial sites, or human remains. However, it is possible human remains may be unearthed during construction activities. **Mitigation Measure 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 Section 15064.5(e) of the CEQA Guidelines. Therefore, impacts would be ***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 Section 15064.5 and related provisions of the PRC. Projects with federal involvement are 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, **Mitigation Measures MM 4.5.1 and MM 4.5.2** address the inadvertent discovery of cultural resources and 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 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 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 District 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

**DZC Archaeology and Cultural Resource Management.** 2023. Cultural Resource Inventory Report: Westhaven Community Services District Disinfection Byproduct Reduction Product, Westhaven, Humboldt County, California.

**Humboldt County.** 2017. Humboldt County General Plan. https://humboldtgov.org/205/General-Plan. Accessed August 2022.

# 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 deficiency? | ☐ | ☐ | ☐ | ☒ |

## REGULATORY CONTEXT

There are no federal 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 off-road heavy-duty diesel vehicles in California. 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 Regulation requires that fleets meet an increasingly stringent set of fleet average targets, culminating in 2023 for large and medium fleets, and in 2028 for small fleets. The most stringent fleet average target generally corresponds to a 2012 model year, or a Tier 3 average standard (CARB, 2022a).

All self-propelled off-road diesel vehicles 25 horsepower (HP) or greater used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to the regulation, including rented and leased vehicles. 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. In addition, the Portable Equipment Registration Program (PERP) requires all portable engines 50 HP or greater to be registered in PERP or be permitted by a local air district.

The regulations were most recently updated on November 17, 2022, and require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California earlier or beyond what is required of fleets in the Off-Road Regulation. The updated regulations also prohibit the addition of high-emitting vehicles to a fleet and require the use of renewable diesel (99 or 100 percent renewable) in off-road diesel vehicles. The amended regulations will be phased in starting in 2024 through the end of 2036 (CARB, 2023, 2022b).

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 current regulation of approximately 31,087 tons of $NO_X$ and 2,717 tons of $PM_{2.5}$. 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 (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 and GHG emissions.

The 2022 Energy Code, which went into effect on January 1, 2023, includes measures that will further 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; require photovoltaic (PV) and battery storage systems for multifamily and selected nonresidential buildings; establish efficiency measures for lighting, building envelopes, and HVAC systems; and increase ventilation standards for gas stoves.

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 statewide $NO_X$ emissions by 105 tons per year.

***California Green Building Standards Code***

In 2007, the 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.

**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).

## LOCAL

| Energy Element | | |
|---|---|---|
| **Goals** | E-G2 | Decrease energy consumption through increased energy conservation and efficiency in building, transportation, business, industry, government, water, and waste management. |
| | E-G3 | Increased local energy supply from a distributed and diverse array of renewable energy sources and providers available for local purchase and export. |
| **Policies** | E-P13 | Encourage the use of renewable energy and environmentally preferable distributed energy generation systems in the county. |

## 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, 2022b, 2022c). 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 tank, and SCADA technology. Power would be provided to the project by PG&E and would be extended to the WTP site.

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 includes decommissioning old inefficient pumps, motors, controls, and other miscellaneous equipment from the High Pressure Zone Pump Station and installing new pump station equipment in the new WTP building. Motors would be National Electrical Manufacturers Association (NEMA) premium motors, and pumps, controls, and other equipment would be energy-efficient models. Further, the project includes installation of photovoltaic (PV) solar panels on the roof of the new WTP

to offset the increased energy demand. Further, the Battery Energy Storage System (BESS) will be programmed to supply power during peak load periods, thereby reducing the load on the electric grid.

The use of fuel-efficient equipment during construction, compliance with State building codes, and installation of PV solar panels and the BESS 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 General Plans, 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. Off-Road Diesel Regulation: Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation (Rulemaking Website). https://ww2.arb.ca.gov/rulemaking/2022/off-roaddiesel. Accessed June 2023.

_____. 2022a. In-Use Off-Road Diesel-Fueled Fleets Regulation. https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation. Accessed March 2023.

_____. 2022b. Standardized Regulatory Impact Assessment (SRIA), Proposed Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation. https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/off-roaddiesel/appb.pdf. Accessed March 2023.

_____. 2021. 2020 Mobile Source Strategy. https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf. Accessed March 2023.

**California Building Standards Commission.** 2019. 2019 California Green Building Standards Code. https://www.dgs.ca.gov/BSC/Codes. Accessed June 2021

**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.

**Humboldt County.** 2017. Humboldt County General Plan. https://humboldtgov.org/205/General-Plan. Accessed August 2022.

# 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. 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 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

### Humboldt County

The County's General Plan includes the following Goal, Policies, and Standards that apply to the proposed project:

| **Safety Element** | | |
|---|---|---|
| **Goal** | S-G1 | Communities designed and built to minimize the potential for loss of life and property resulting from natural and manmade hazards. |
| | S-G8 | A community prepared to withstand and recover from a high magnitude, long-duration local earthquake along the Cascadia subduction zone. |
| **Policies** | S-P1 | Plan land uses and regulate new development to reduce the potential for loss of life, injury, property damage, and economic and social dislocations resulting from natural and manmade hazards, including but not limited to, steep slopes, unstable soils areas, active earthquake faults, wildland fire risk areas, airport influence areas, military operating areas, flood plains, and tsunami run-up areas. |
| | S-P2 | Development within the coastal zone shall minimize risks to life and property in areas of high geologic, tsunami, flood, and fire hazard; assure stability and structural integrity; and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas or |

| | | |
|---|---|---|
| | | in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. |
| | S-P7 | The County shall protect life and property by applying and enforcing state adopted building codes and Alquist-Priolo requirements to new construction. |
| | S-P11 | New development may be approved only if it can be demonstrated that the proposed development will neither create nor significantly contribute to, or be impacted by, geologic instability or geologic hazards. |
| **Standards** | S-S1 | Site specific reports addressing geologic hazards and geologic conditions shall be required as part of the review of discretionary development and ministerial permits. Geologic reports shall be required and prepared consistent with land use regulations (Title III, Land Use and Development, Division 3, Building Regulations, Chapter 6—Geologic Hazards). |

## DISCUSSION OF IMPACTS

**Question A**

**i and ii)**

According to the California Geological Survey (CGS), the nearest Alquist Priolo Study Zone is the Mad River Fault Zone, approximately 1.8 miles northwest of the WTP. According to the Geotechnical Exploration Report prepared by KC Engineering Company in January 2021, there are no known active faults crossing the site and no potential for fault-related surface rupture at the project site.

The nearest active faults include the Trinidad Fault, McKinleyville Fault and Mad River Fault, located approximately 0.2 miles west, 2.7 miles south and 4.4 miles south of the WTP site, respectively; therefore, earthquake-related ground shaking should be expected during the design life of the project.

The KC Engineering Geotechnical Report includes a seismic design evaluation completed in accordance with California Building Code requirements, and recommendations for foundations, mat slabs, and footings to minimize the risk of losses, injury, or death related to seismic activity. Recommendations from the geotechnical report have been incorporated into the 90% design plans for the project. 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. The design plans include a checklist that includes inspections required to be completed by a geotechnical engineer as recommended in the Geotechnical Report.

Because seismic design requirements are incorporated into the construction plans, and a geotechnical engineer will complete field observations as recommended in the Geotechnical Report, impacts 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 shallow, medium density, coarse-grained material and stiff, sandy clay, overlying graywacke bedrock at 12 to 18 feet below grade. Perched groundwater was encountered at one 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 low. However, due to the presence of loose near-surface soils and perched groundwater, the Geotechnical Report recommends that the treatment building be supported on a structural mat slab foundation. The 90% design plans incorporate recommendations for the foundation system as recommended in the Geotechnical Report.

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 water treatment building and water tank are located on relatively level topography and the possibility of seismically induced landslide hazards is low. Therefore, because the risk for liquefaction and landslides is low, and recommendations from the Geotechnical Report, including requirements for field observations, are incorporated into the project plans, 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.

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, 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 swell when they absorb water and shrink when they dry out. Expansive soils generally contain clays that expand when moisture is absorbed into the crystal structure. When soils are unstable, they can shift or expand and damage structures that are upon them. According to the Geotechnical Study, soil testing indicated that soils collected from the borings have a low expansive potential. Due to the presence of loose near surface soils and perched groundwater, the Geotechnical Report recommends that the treatment building be supported on a structural mat slab foundation. Because 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, 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, a septic tank effluent pumping (STEP) system, and one mound system leach field northwest of the new WTP. Two monitoring wells would be installed in the leach field. The septic system and leach field would be designed and constructed in accordance with Humboldt County standards for OWTS (Humboldt County, 2017b). 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 Humboldt 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**

Paleontology is the study of prehistoric life forms, other than humans. 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. Paleontological resources and fossils are found primarily in sedimentary rock deposits. According to the U.C. Berkeley Museum of Paleontology, there are 710 sites in Humboldt County in which paleontological resources have been discovered; 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 Pleistocene period marine and nonmarine (continental) sedimentary rocks. Because paleontological resources and fossils are found primarily in sedimentary rock deposits, fossilized paleontological resources may be present in the project area. **Mitigation Measure MM 4.7.1** 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 and unique geological features. However, these impacts can be fully mitigated with implementation of construction-related erosion control programs and with the incorporation of standard seismic safety and engineering design measures. Implementation of **MM 4.7.1** ensures that the project's impacts are not cumulatively considerable.

## MITIGATION

**MM 4.7.1** 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, Westhaven Community Services 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.

## DOCUMENTATION

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**KC Engineering Company**. 2021. Geotechnical Exploration Report. Proposed Water Improvements Project, Westhaven Community Service District, California.

**California Department of Conservation (DOC).** 2018. California Geological Survey: Earthquake Zones of Required Investigation. https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed May 2021.

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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 (2006), Global Warming Solutions Act

As required by Assembly Bill 32 (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 metric tons (MT) $CO_2$ equivalent ($CO_2e$) units 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. 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 (SCS) in the applicable Regional Transportation Plan (RTP) 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. 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 off-road heavy-duty diesel vehicles in California. 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 Regulation requires that fleets meet an increasingly stringent set of fleet average targets, culminating in 2023 for large and medium fleets, and in 2028 for small fleets. The most stringent fleet average target generally corresponds to a 2012 model year, or a Tier 3 average standard (CARB, 2022c).

All self-propelled off-road diesel vehicles 25 horsepower (HP) or greater used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to the regulation, including rented and leased vehicles. The regulation imposes limits on idling, restricts adding older vehicles into fleets, and requires fleet owners to reduce their emissions by retiring, replacing, repowering, or retrofitting older engines. In addition, the Portable Equipment Registration Program (PERP) requires all portable engines 50 HP or greater to be registered in PERP or be permitted by a local air district.

The regulations were most recently updated on November 17, 2022, and require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California earlier or beyond what is required of fleets in the Off-Road Regulation. The updated regulations also prohibit the addition of high-emitting vehicles to a fleet and require the use of renewable diesel (99 or 100 percent renewable) in off-road diesel vehicles, subject to certain exemptions. The amended regulations will be phased in starting in 2024 through the end of 2036 (CARB, 2023; 2022d).

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 current regulation of approximately 31,087 tons of $NO_X$ and 2,717 tons of $PM_{2.5}$. 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 (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 and GHG emissions.

The 2022 Energy Code, which goes into effect on January 1, 2023, includes measures that will further 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; require photovoltaic (PV) and battery storage systems for multifamily and selected nonresidential buildings; establish efficiency measures for lighting, building envelopes, and HVAC systems; and increase ventilation standards for gas stoves.

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 statewide $NO_X$ emissions by 105 tons per year.

***California Green Building Standards Code (CALGreen)***

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, and initially went into effect on January 1, 2011. 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 goes 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.

**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 vehicle miles travelled (VMT).

In *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4$^{th}$ 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 $CO_2$. |
| 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. |

| Greenhouse Gas | Description |
|---|---|
| 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. |

## LOCAL

### Humboldt County

The County's General Plan includes the following Policies and Standard that apply to the proposed project:

| Air Quality Element | | |
|---|---|---|
| **Policy** | AQ-P11 | The County shall evaluate the GHG emissions of new large scale residential, commercial, and industrial projects for compliance with state regulations and require feasible mitigation measures to minimize GHG emissions. |
| | AQ-P17 | Projects requiring discretionary review should preserve large trees, where possible, and mitigate for carbon storage losses attributable to significant removal of trees. |
| **Standard** | AQ-S2 | During environmental review of large scale residential, commercial, and industrial projects, include an assessment of the project's GHG emissions and require feasible mitigation consistent with best practices documented by the California Air Pollution Control Officers Association in their 2008 white paper "CEQA & Climate Change" or successor documents. |

| | |
|---|---|
| AQ-S6 | Large scale residential, commercial, and industrial projects which remove a significant number of large trees (for example, more than 50 trees of greater than 12 inches DBH) shall plant replacement trees on-site or provide offsetting carbon mitigations. |

**Humboldt Regional Climate Action Plan**

In April 2022, a public review draft of the Humboldt Regional Climate Action Plan (RCAP) was released for public review. The RCAP is a collaborative effort between the County of Humboldt and the cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad to craft a regional approach for addressing the challenges of climate change. The primary goal of the RCAP is to reduce GHGs from local sources. It is anticipated that the RCAP will be adopted in the fall of 2023.

## 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.

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: *CARB, 2021.*

** 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).

As stated under Regulatory Context, although the County is in the process of preparing a RCAP, the plan has not yet been adopted, and neither the District nor County have adopted numerical thresholds for GHG emissions.

Numerical thresholds that have been referenced for other projects in Humboldt County include the Bay Area Air Quality Management District's (BAAQMD) threshold of 1,100 MT/year $CO_2e$. 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. 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 $CO_2e$.

**Project GHG Emissions**

GHG emissions resulting from construction and operation of the proposed project were estimated using the CalEEMod Version 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. Therefore, CalEEMod uses Pacific Gas and Electric Company's (PG&E) mix of renewable and non-renewable energy sources to estimate indirect GHG emissions associated with electricity use.

Site-specific inputs and assumptions for the proposed project include, but are not limited to, the following. Output files, as well as site-specific inputs and assumptions, are provided in **Appendix A**.

- Emissions from construction are based on all construction-related activities associated with proposed and future uses, including but not limited to grading, use of construction equipment, material hauling, trenching, site preparation, 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.
- It is estimated that implementation of the project will result in the removal of one acre of vegetation at the WTP site; ~81 trees with a diameter at breast height (DBH) greater than six inches would be removed to facilitate construction at the WTP (refer to Table 4.2-1 in Section 4.2 (Agriculture and Forest Resources). Five trees with a DBH greater than six inches would be removed to facilitate construction of the PG&E improvements.
- For purposes of the CalEEMod analysis, it was assumed that construction would commence in the spring of 2025 and occur over a period of approximately two and a half years; however, actual construction dates will depend on funding availability.

**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 | 235 | 0.01 | 0.01 | 0.02 | 237 |
| 2026 | 263 | 0.01 | Trace | Trace | 264 |
| 2027 | 152 | 0.01 | Trace | Trace | 152 |
| **Total** | **650** | **0.03** | **0.02** | **0.03** | **653** |

*Source: CalEEMod, 2023. Note: Totals may not add due to CalEEMod calculation factors and/or 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 WTP building, water treatment equipment, water tank, and SCADA technology. 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 sources include consumer products, architectural coatings, and road dust. Energy sources include electricity generated from fossil fuels (indirect emissions) that are used to operate pumps, motors, etc.

Reporting under Water includes increased flows resulting from construction of the new WTP building. Solid waste includes increased solid waste generation associated with the project. Refrigerants include those used in building air conditioning systems. Stationary sources include the emergency generators. Reporting under Vegetation reflects changes in sequestration from land use changes and tree removal/planting (see additional discussion under Timber Operations below). 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 | 13.3 | < 0.005 | < 0.005 | 0.02 | 13.5 |
| Area | 0.04 | < 0.005 | < 0.005 | 0 | 0.04 |
| Energy | 9.65 | < 0.005 | < 0.005 | 0 | 9.70 |
| Water | 0.51 | 0.02 | < 0.005 | 0 | 1.23 |
| Solid Waste | 0.33 | 0.03 | 0 | 0 | 1.16 |
| Refrigerants | 0 | 0 | 0 | 0.13 | 0.13 |
| Stationary | 31.3 | < 0.005 | < 0.005 | 0 | 31.4 |
| Vegetation | 10.9 | 0 | 0 | 0 | 10.9 |
| Amortized Construction Emissions | 21.7 | 0.001 | Trace | 0.001 | 21.8 |
| **Total** | **87.73** | **0.06** | < 0.005 | **0.15** | **89.9** |

*Source: CalEEMod, 2023. Note: Totals may not be added due to CalEEMod calculation factors and/or 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 $CO_2e$. In addition, 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.

In addition, the project includes installation of a solar PV system at the WTP to offset a portion of the electrical demand at the WTP. Further, as documented in Section 4.17 (Transportation), the project does not include any components that would increase vehicle miles traveled (VMT) or result in significant mobile source emissions over existing levels.

The Forestry Technical Assistance Report prepared for the proposed project by BBW & Associates Forestry Consultants (BBW, 2021) contains a detailed analysis of GHG emissions and carbon sequestration associated with proposed tree removal. As discussed in the Report, trees 6-inches DBH and greater that are removed will be hauled to a sawmill to be processed into lumber. Trees less than 6-inches will be masticated and left on-site to decay or be chipped and burned to provide renewable energy through cogeneration. The decomposition of the proposed project's material that is left on site would ultimately release the carbon back into the atmosphere. While trees left to decay emit $CO_2$, most supplement the forest soils and duff layer where carbon is a major component to soil fertility. Therefore, the requirement for replacement trees to be planted onsite to mitigate tree removal is not warranted.

As stated in Section 3.1 (Project Background, Need, and Objectives), due to deficiencies in the water system, there is currently a moratorium on additional water connections. Although the proposed water system improvements could facilitate new construction on undeveloped parcels in the project area, thereby increasing GHG emissions in the area, there are additional development constraints, including the lack of a public sewer system, that would make development on the smaller lots challenging. In addition, future development would be in accordance with the County's General Plan and would comply with the State's Building Code and

Energy Efficiency Standards, and other applicable State and local codes that were enacted for the purpose of minimizing GHG emissions.

As documented above, the proposed project would not exceed the referenced GHG thresholds, would not result in a significant increase in VMT, and would not significantly influence new development in the area in a manner that would increase long-term GHG emissions. Impacts would be ***less than significant.***

**Question B**

See discussions under Regulatory Context and Question A above. A project is considered consistent with plans, policies, or regulations adopted to reduce GHG emissions if it implements the requirements of such plans, policies, or regulations and does not impede attainment of established GHG goals. As noted above, the County has prepared a draft RCAP, but this plan has not yet been adopted. The District will ensure through contractual obligations that the project complies with applicable State regulations enacted to reduce GHG emissions, including those identified under Regulatory Context. Therefore, 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. As the use of renewable energy sources for electricity generation increases in accordance with existing State regulations, GHG emissions associated with the use of electricity will continue to decrease. Because the project will comply with regulations adopted to reduce GHG emissions, the 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 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 with a safe working environment. OSHA regulations apply to the workplace and cover activities ranging from confined space entry to toxic chemical exposure. OSHA regulates workplace exposure to hazardous chemicals and activities through regulations governing workplace procedures and equipment.

### 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 appears 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

### Humboldt County

The County's General Plan includes the following Goals, Policies, and Standard that apply to the proposed project:

| **Safety Element** | | |
|---|---|---|
| **Goals** | S-G1 | Communities designed and built to minimize the potential for loss of life and property resulting from natural and manmade hazards. |
| | S-G4 | Development designed to reduce the risk of structural and wildland fires supported by fire protection services that minimize the potential for loss of life, property, and natural resources. |

| | | |
|---|---|---|
| **Policies** | S-P1 | Plan land uses and regulate new development to reduce the potential for loss of life, injury, property damage, and economic and social dislocations resulting from natural and manmade hazards, including but not limited to, steep slopes, unstable soils areas, active earthquake faults, wildland fire risk areas, airport influence areas, military operating areas, flood plains, and tsunami run-up areas. |
| | S-P2 | Development within the coastal zone shall minimize risks to life and property in areas of high geologic, tsunami, flood, and fire hazard; assure stability and structural integrity; and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. |
| | S-P19 | Development shall conform to Humboldt County SRA Fire Safe Regulations |
| | S-P33 | Eliminate the use of toxic materials within Humboldt County, where feasible, and require the reduction, recycling, and reuse of such materials, to the greatest extent possible, where complete elimination of their use is not feasible. Require new development which may generate significant quantities of hazardous wastes to be consistent with all the goals and policies of the Hazardous Waste Management Plan. |
| **Standard** | S-S10 | New construction shall conform to the most recently adopted California building codes. |
| | S-S11 | The California Fire Code shall be applied to all applicable development. |
| | S-S16 | The County shall condition new development that handles toxic, flammable, or explosive materials in such quantities that would, if released or ignited, constitute a significant risk to adjacent human populations or development to conform to the applicable state or federal materials handling and emergency response plans. |

**Humboldt County Division of Environmental Health**

The Humboldt County Division of Environmental Health is designated as the Certified Unified Program Agency (CUPA) for Humboldt County and is responsible for regulating facilities that handle hazardous materials, generate, or treat a hazardous waste, and/or operate underground storage tanks. Facilities are required to prepare a Hazardous Materials Business Plan if they use, store, or handle hazardous material and waste at their facility.

## DISCUSSION OF IMPACTS

**Questions A and B**

Operation of the water system would continue to utilize a small amount of sodium hypochlorite for disinfection. The new WTP building would include a dedicated room for chemical storage and the sodium hypochlorite dosing station in compliance with California Building Code and Fire Code requirements. In addition, the new transformer at the WTP may contain oil (e.g., mineral oil). The transport, storage, and use of sodium hypochlorite, transformer oil, and other hazardous substances would be conducted in accordance with federal, State, and local regulations including, but not limited to, those identified under Regulatory Context.

During construction activities, limited quantities of hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc., may be used in the project area. 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 are 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 Humboldt County Office of Education, there are no schools within 0.25 miles of the project site. The nearest schools are in Trinidad, ~3.5 miles to the northwest. Therefore, there would be ***no impact.***

**Question D**

The Cortese list is prepared in accordance with California Government Code §65962.5. The following databases were reviewed to locate "Cortese List" sites.

- 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 these records did not identify any active clean-up sites within a one-mile radius of the proposed improvements. Therefore, there would be ***no impact***.

**Question E**

According to the Humboldt County Airport Land Use Compatibility Plan (Humboldt County, 2021), the project area is not within an airport land use plan area or airport influence area. The nearest public airport is California Redwood Coast – Humboldt County Airport, approximately 3.5 miles south of the project site. There are no private airstrips located in the project area. Due to the distance between the airport and the project site, there would be ***no impact.***

**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.

In addition, pursuant to Cal/OSHA requirements, temporary traffic control during completion of activities that require work in the public right-of-way is required and must adhere to the procedures, methods and guidance given in the current edition of the California Manual on Uniform Traffic Control Devices (MUTCD). Specific requirements for traffic safety measures (i.e., signs, cones, flaggers, etc.) would be included in the District's contract documents. These requirements ensure that impacts would be ***less than significant***.

**Question G**

The project does not include improvements that would increase the likelihood of wildland fires in the long-term; rather, the proposed improvements would increase water storage capacity, improve fire flows in the area, and add fire hydrants on 4$^{th}$ Avenue.

The project is located within a Moderate Fire Hazard Severity Zone 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.

In addition, the California Fire Code includes requirements that must be followed during construction, including Chapter 33 (Fire Safety During Construction and Demolition) and Chapter 35 (Welding and Other Hot Work). These regulations prescribe safeguards for construction, alteration, and demolition operations intended to maintain required levels of fire protection, limit fire spread, establish the appropriate operation of equipment, and promote prompt response to fire emergencies. The regulations also address fire protection systems, access to the site and building by fire personnel, hazardous materials storage and use, and temporary heating and other ignition sources. Specific safeguards are included for welding, cutting, open torches, and other hot work operations to prevent sparks or heat from igniting exposed combustibles. Implementation of existing California Fire Code regulations ensures that impacts during construction 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 State and local regulations, and steps must be taken during construction to minimize wildfire risks.

In addition, the proposed project and cumulative projects must implement temporary traffic control measures (i.e., signs, cones, flaggers, etc.) during construction in the road right-of-way to ensure that emergency response vehicles are not hindered by construction activities. 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

**California Department of Forestry and Fire Protection (CAL FIRE).** n.d. Fire Hazard Severity Zone Viewer. https://egis.fire.ca.gov/FHSZ/. Accessed February 2023.

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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 legislation 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.

### State Water Resources Control Board (SWRCB)/NCRWQCB

#### *National Pollution Discharge Elimination System (NPDES) Program*

Pursuant to the federal Clean Water Act, responsibility for enforcing the NPDES program has been delegated to the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB). The NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the U.S. In California, NPDES permits are also

referred to as waste discharge requirements (WDRs). Point sources are discrete conveyances such as pipes or man-made ditches. Below is a description of some common NPDES General Permits.

***Statewide NPDES Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*** (Order No. 2022-0057-DWQ, NPDES No. CAS000002)

Discharges from construction sites that disturb one acre or more of land area are subject to the NPDES permit for *Discharges of Storm Water Runoff associated with Construction Activity* (currently Order WQ 2022-0057-DWQ, NPDES No. CAS000002), also known as the Construction General Permit. The permitting process requires the development and implementation of a 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 Small Municipal Separate Storm Sewer Systems (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.

***General WDRs/NPDES Permit for Low Threat Discharges to Surface Waters in the North Coast Region***

(Order R1-2020-0006/NPDES Permit CAG024902) adopted by the NCRWQCB on April 16, 2020, applies to individuals, public agencies, private businesses, and other legal entities that discharge clean or relatively pollutant-free wastewaters that pose little or no threat to the quality of waters of the United States. The Order applies to a broad range of low threat discharges, including discharges from water supply tanks and pipelines and groundwater from well development activities, as well as construction dewatering and discharges from other activities that meet the definition of low threat.

**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).

## LOCAL

### Humboldt County

The County's General Plan includes the following Goals, Policies, and Standards that apply to the proposed project:

| Water Resources Element | | |
|---|---|---|
| **Goal** | WR-G1 | High quality and abundant surface and groundwater water resources that satisfy the water quality objectives and beneficial uses identified in the Water Quality Control Basin Plan for the North Coast Region. |
| | WR-G6 | Public water systems able to provide adequate water supply to meet existing and long-term community needs in a manner that protects other beneficial uses and the natural environment. |
| | WR-G10 | Storm drainage utilizing onsite infiltration and natural drainage channels and watercourses, while minimizing erosion, peak runoff, and interference with surface and groundwater flows and storm water pollution. |
| **Policies** | WR-P10 | Ministerial and discretionary projects requiring a grading permit shall comply with performance standards adopted by ordinance and/or conditioned to minimize erosion and discharge of sediments into surface runoff, drainage systems, and water bodies consistent with best management practices, adopted Total Maximum Daily Loads (TMDLs), and non-point source regulatory standards. |
| | WR-P12 | Development should be designed to complement and not detract from the function of rivers, streams, ponds, wetlands, and their setback areas. |
| | WR-P14 | Commercial and industrial discretionary uses shall be evaluated for their potential to contaminate groundwater resources and be mitigated, as necessary. |
| | WR-P15 | Discretionary projects involving groundwater withdrawals in proximity to coastal areas with a potential to create saltwater intrusion shall demonstrate that groundwater supplies will not be adversely affected by saltwater intrusion. |
| | WR-P26 | Support the actions and facilities needed by public water systems to supply the water demands projected in the General Plan. |
| | WR-P35 | Implement and comply with the National Pollutant Discharge Elimination Systems (NPDES) Permit issued by the State Water Resources Control Board to the designated portions of the County. |
| | WR-P36 | Natural drainage courses, including ephemeral streams, shall be retained, and protected from development impacts which would alter the natural drainage courses, increase erosion or sedimentation, or have a significant adverse effect on flow rates or water quality. Natural vegetation within riparian and wetland protection zones shall be maintained to preserve natural drainage characteristics consistent with the Biological Resource policies. Stormwater discharges from outfalls, culverts, gutters, and other drainage control facilities that discharge into natural drainage courses shall be dissipated so that they make no significant contribution to additional erosion and, where feasible, are filtered and cleaned of pollutants. |

| | | |
|---|---|---|
| | WR-P40 | Commercial and industrial activities shall minimize, and eliminate to the extent feasible, facility-related discharges to the stormwater system. As required by state codes and local ordinances, commercial and industrial stormwater discharge must be routed to a wastewater collection system; for example, minimizing runoff from vehicle maintenance yards, car washes, restaurants cleaning grease, contaminated mats/carts into storm drains, and other wash practices that result in materials other than plain water entering the storm drain system. |
| | WR-P42 | Incorporate appropriate erosion and sediment control measures into development design and improvements. |
| **Standards** | WR-S4 | Ministerial and discretionary permits for land use development that include development of new in-stream water sources or other streambed alterations subject to California Fish and Game Code Section 1602 shall provide evidence of, or be conditioned to obtain a Streambed Alteration Agreement from the Department of Fish and Game as well as a Water Right Permit or a small scale domestic use registration from the State Water Board. |
| | WR-S6 | Discretionary development within watersheds containing impaired water bodies as defined under Section 303(d) of the federal Clean Water Act and governed by Total Maximum Daily Load (TMDL) implementation plans shall be conditioned to reduce or prevent further impairment consistent with applicable TMDLs. |
| | WR-S7 | Ministerial and discretionary projects shall conform to grading ordinance standards for erosion and sediment control. |
| **Safety Element** | | |
| **Goal** | S-G2 | Areas of geologic instability, floodplains, tsunami run-up areas, high risk wildland fire areas, and airport areas planned and conditioned to prevent unnecessary exposure of people and property to risks of damage or injury. |
| | S-G3 | Natural drainage channels and watersheds that are managed to minimize peak flows in order to reduce the severity and frequency of flooding. |
| **Policies** | S-P1 | Plan land uses and regulate new development to reduce the potential for loss of life, injury, property damage, and economic and social dislocations resulting from natural and manmade hazards, including but not limited to, steep slopes, unstable soils areas, active earthquake faults, wildland fire risk areas, airport influence areas, military operating areas, flood plains, and tsunami run-up areas. |
| | S-P2 | Development within the coastal zone shall minimize risks to life and property in areas of high geologic, tsunami, flood, and fire hazard; assure stability and structural integrity; and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. |
| **Standards** | S-S5 | Regulatory standards for flood mitigation shall be based on FEMA Flood Insurance Rate Maps and regulations and local ordinances. |
| | S-S8 | Flooding and drainage management shall be principally permitted in all zones when consistent with applicable state, federal, and local regulations. |

## 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 a SWPPP that includes BMPs to control construction-related erosion and sedimentation and 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. The District also must file a Report of Waste Discharge for any discharge of waste to land or surface waters that may impair a beneficial use of surface or groundwater of the state. Further, prior to any work in waters of the State, the District must also obtain a State Water Quality Certification (or waiver) from the NCRWQCB, which will help ensure that the project will not violate established State water quality standards.

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 located in a very-low priority basin, and there is not a sustainable groundwater management plan that applies to the proposed project (DWR, 2022). Compliance with conditions of resource agency permits, implementation of BMPs during construction, and compliance with post-construction requirements 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 require new groundwater supplies for construction or operation. Construction of the new WTP building, appurtenant equipment, paved areas, and water tanks would result in an increase in impervious surface of ~0.5 acres. The increase in impervious surface would decrease the area available for groundwater recharge; however, the increase 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 ~0.5 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, including replacement of the existing constructed ditch between the new WTP building and existing access road with 18-inch-diameter corrugated metal stormdrain pipe to facilitate drainage; a 48-inch drop inlet would be installed at the eastern end of the stormdrain pipe.

In addition, ~400 linear feet of infiltration trenches would be installed north and west of the new WTP building to collect the majority of the runoff from the new WTP building and parking area. The infiltration trenches would be 2.5 feet wide and 5 feet deep. In addition, river rock would be installed over geotextile fabric on all cut slopes greater than 2:1 to minimize erosion.

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**

The project is not located within a designated Tsunami Hazard Area (Humboldt State University, n.d.). Other than the Pacific Ocean, there are no large water bodies in the surrounding area that could generate seiches. According to the FEMA Flood Insurance Rate Map (Panel 0623C01515G, effective June 21, 2017), the project site is not located within a designated flood hazard zone. Therefore, there is no potential for release of pollutants due to inundation by seiche, tsunami, or flood. There would be ***no impact***.

## CUMULATIVE IMPACTS

Completion of the proposed project and other potential cumulative projects in the region could degrade water quality due to increased erosion during and post construction; however, all development projects that disturb one acre or more of total land area in the County are required to implement a SWPPP that includes BMPs to minimize runoff and erosion during construction. Projects must also implement post-construction measures to avoid long-term impacts to water quality. Compliance with existing regulatory agency requirements and completion of the proposed drainage improvements 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.** 2022. Basin Prioritization Dashboard, Sustainable Groundwater Management Act. https://gis.water.ca.gov/app/bp-dashboard/final/. Accessed December 2022.

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

**Humboldt County.** 2017. Humboldt County General Plan. https://humboldtgov.org/205/General-Plan. Accessed August 2022.

**Humboldt State University.** n.d. Tsunami Hazard Area Map, Moonstone and Clam Beach, Humboldt County; produced by the California Geological Survey and the California Governor's Office of Emergency Services. https://rctwg.humboldt.edu/sites/default/files/brochure_moonstone.pdf. Accessed February 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. CAG024902; Order R1-2020-0006.* https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2020/20_0006_Low%20Threat%20Discharges%20to%20Surface%20Waters.pdf. Accessed February 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.

CGC §65302(a) describes the required content of a land use element and states that the land use element must designate the proposed general distribution, general location, and extent of land uses for housing, businesses, industry, open space, recreational facilities, public facilities, areas subject to flooding, and other categories of public and private uses. The land use element correlates with the circulation element to ensure connectivity between residential uses, services, and employment centers. The land use element assists in guiding decision-making related to zoning, subdivisions, and public works.

### LOCAL

#### Humboldt County Local Coastal Program – Trinidad Area Plan

As required by the California Coastal Act, the Trinidad Area Plan for the Humboldt County Local Coastal Program (Humboldt County, 2007) identifies land uses and standards to guide development within the Coastal Zone. Chapter 3 of the Plan identifies development and resource protection policies and standards that govern zoning plan amendments, public works extensions, land divisions, and other development activities. Chapter 4 of the Plan identifies land use designations and an explanation of permitted uses and densities.

#### Humboldt County General Plan

As documented in each resource section of this Initial Study, the Humboldt County General Plan includes objectives and policies designed for the purpose of avoiding or minimizing impacts to the environment.

## 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 project would not create a barrier for existing or planned development; therefore, there would be ***no impact.***

### Question B

Plans, policies, and/or regulations adopted to avoid potential impacts on the environment are identified in each resource section of this Initial Study. As documented in each resource section, the proposed project is consistent with applicable regulations of the agencies identified in Section 1.7 of this Initial Study. Where necessary, mitigation measures are included to reduce impacts to less-than-significant levels.

Compliance with applicable federal, State, and local regulations, and implementation of the Mitigation Measures identified in Section 1.10 ensures that the proposed project would not conflict with any plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Potential 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 as well as applicable federal, State, and local regulations that were adopted to avoid or mitigate potential environmental effects. With implementation of the mitigation measures identified in Section 1.10, the proposed project would not conflict with the land use plans, policies, and regulations identified in each resource section of this Initial Study, and the project's impacts would not be cumulatively considerable.

## MITIGATION

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

## DOCUMENTATION

**Humboldt County.** 2017. Humboldt County General Plan, Land Use Element. https://humboldtgov.org/DocumentCenter/View/61996/Chapter-4-Land-Use-Element-PDF. Accessed May 2022.

_____. 2007. Humboldt County General Plan Volume II, Trinidad Area Plan of the Humboldt County Local Coastal Program. https://humboldtgov.org/DocumentCenter/View/50848/Trinidad-Area-Local-Coastal-Plan. Accessed May 2022.

____. 2021. Humboldt County Code of Ordinances. https://humboldt.county.codes/. Accessed May 2021.

# 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 proposed 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 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. A mineral resource is land on which known deposits of commercially viable mineral or aggregate deposits exist.

### LOCAL

#### Humboldt County

The County's General Plan includes the following Goal, Policies, and Standards that apply to the proposed project:

| Conservation and Open Space | | |
|---|---|---|
| **Policies** | MR-P8 | Plan future development such that it will not interfere with the utilization of identified mineral deposits. |

## DISCUSSION OF IMPACTS

#### Questions A and B

According to the CGS (CGS, 2022a and 2022b), there are no designated MRZs or active quarries in the project area. There are no publicly known, economically viable deposits of precious metals in the vicinity, nor is the project site or adjacent areas designated or zoned for mineral extraction activities. Therefore, there would be ***no impact***.

## CUMULATIVE IMPACTS

As documented herein, the proposed project would not result in impacts to mineral resources; therefore, the project would not contribute to adverse impacts associated with cumulative impacts to mineral resources.

## MITIGATION

None necessary.

## DOCUMENTATION

**California Department of Conservation**, California Geological Survey. 2022a. SMARA Mineral Lands Classification Data Portal. http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc. Accessed February 2023.

_____. 2022b. Mines Online. https://maps.conservation.ca.gov/mol/index.html. Accessed February 2023.

# 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? | ☐ | ☐ | ☐ | ☒ |

## 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

#### Humboldt County

The County's General Plan includes the following Goals, Policies, and Standards that apply to the proposed project:

| Noise Element | | |
|---|---|---|
| **Goal** | N-G1 | A quiet and healthful environment with limited disagreeable noise. |
| | N-G2 | Land uses arranged to reduce annoyance and complaints and minimize the exposure of community residents to excessive noise. |
| **Policies** | N-P1 | Minimize stationary noise sources and noise emanating from temporary activities by applying appropriate standards for average and short-term noise levels during permit review and subsequent monitoring. |

| | | |
|---|---|---|
| **Standards** | N-S1 | The Land Use/Noise Compatibility Standards (Table 13-C) shall be used as a guide to ensure compatibility of land uses. Development may occur in areas identified as "normally unacceptable" if mitigation measures can reduce indoor noise levels to "Maximum Interior Noise Levels" and outdoor noise levels to the maximum "Normally Acceptable" value for the given Land Use Category. |

**Humboldt County General Plan Noise Element Table 13-C**
**(Land Use/Noise Compatibility Standards)**

| Clearly Acceptable | Normally Acceptable | Normally Unacceptable | Clearly Unacceptable |
|---|---|---|---|

| Land Use Category | Maximum Interior Noise Levels | 50 - 60 | 61 - 70 | 71 - 80 | 81 – 90 | 91+ |
|---|---|---|---|---|---|---|
| Single-Family Residential, Duplex, Mobile Homes | 45 | | | | | |
| Churches | 45 | | | | | |
| Commercial, Industrial, Manufacturing, Utilities | - | | | | | |
| Public Right-of-Way | - | | | | | |

| | | |
|---|---|---|
| | N-S3 | For noise sensitive locations where noise contours do not exist, the environmental review process required by the California Environmental Quality Act shall be utilized to generate the required analysis and determine the appropriate mitigation per Plan and state standards. Future noise levels shall be predicted for a period of at least 10 years from the time of building permit application. |
| | N-S4 | When a discretionary project has the potential to generate noise levels in excess of Plan standards, a noise study together with acceptable plans to assure compliance with the standards shall be required. The noise study shall measure or model as appropriate, Community Noise Equivalent Level (CNEL) and Maximum Noise Level (Lmax) levels at property lines and, if feasible, receptor locations. Noise studies shall be prepared by qualified individuals using calibrated equipment under currently accepted professional standards and include an analysis of the characteristics of the project in relation to noise levels, all feasible mitigations, and projected noise impacts.<br><br>The Noise Guidebook published by the U.S. Department of Housing and Urban Development, or its equivalent, shall be used to guide analysis and mitigation recommendations. |
| | N-S5 | Noise reduction shall be required as necessary in new development to achieve a maximum of 45 CNEL (Community Noise Equivalent Level) interior noise levels in all habitable rooms per California building standards. |

N-S7 The following noise standards, unless otherwise specifically indicated, shall apply to all property within their assigned noise zones and such standards shall constitute the maximum permissible noise level within the respective zones.

**Short-Term Noise Standards ($L_{max}$)**

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

Exceptions. The short-term noise levels shown in the above table shall not apply to uses such as, but not limited to:

1. Portable generator use in areas served by public electricity when electrical service is interrupted during emergencies as determined by the Planning Director.
2. Temporary events in conformance with an approved Conditional Use Permit.
3. Use of chainsaws for cutting firewood and power equipment used for landscape maintenance when accessory to permitted on-site uses.
4. Heavy equipment and power tools used during construction of permitted structures when conforming to the terms of the approved permit.
5. Emergency vehicles.

## DISCUSSION OF IMPACTS

### Question A

The County's General Plan Noise Element includes noise compatibility standards for new development projects (see General Plan Table 13-C under Regulatory Context) to ensure that existing uses are not impacted by new development. Land use categories shown in Table 13-C are those applicable to the proposed project.

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 any living entity or aggregate of entities 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. Sensitive receptors in the project area include single-family residences.

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).

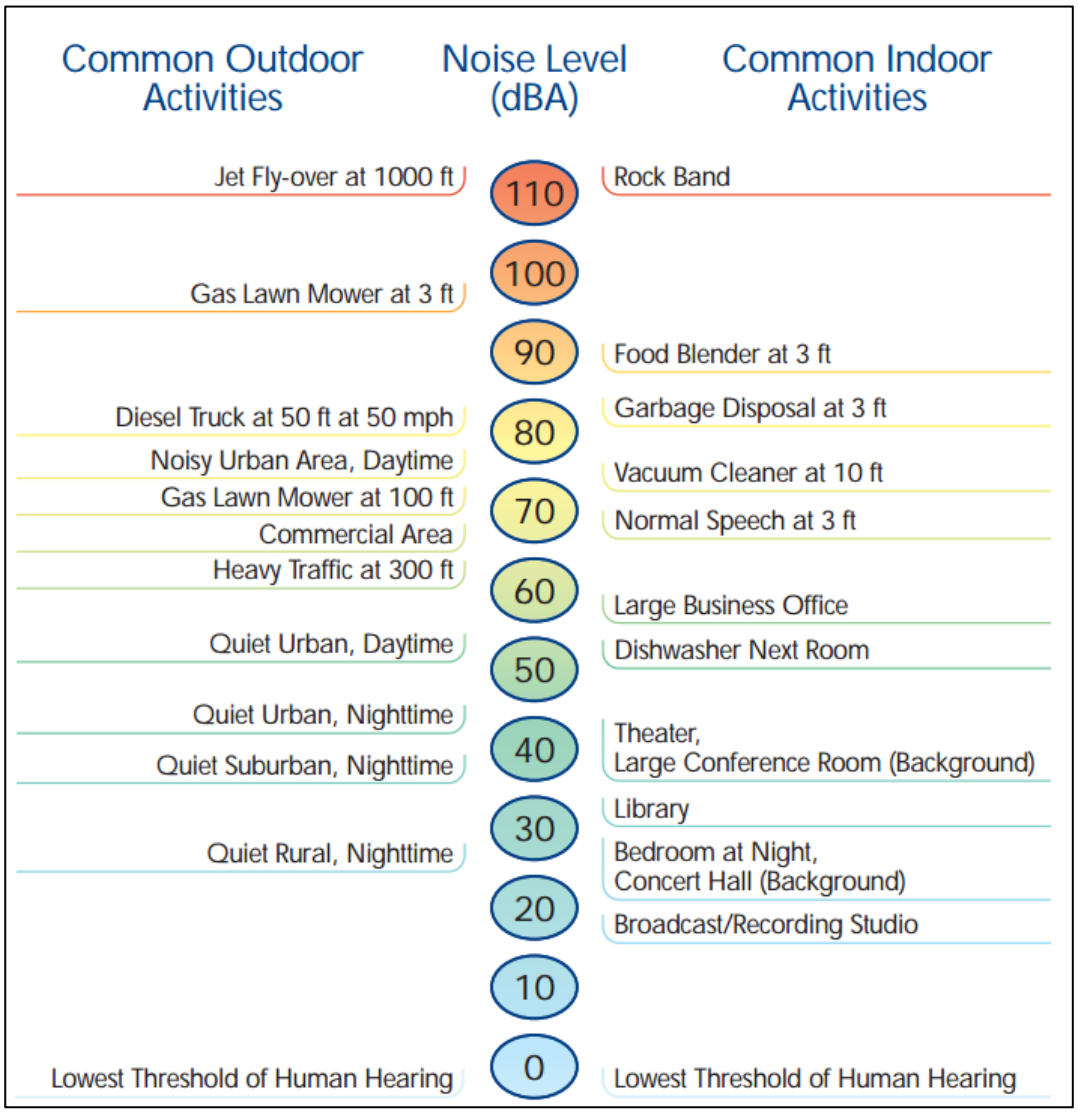
Ambient noise levels in the project area are typical of rural residential areas. Primary noise sources in rural environments are household pets, landscape equipment (e.g., lawnmowers, hedge trimmers, leaf blowers, etc.), natural noise (wind, birds, etc.), and vehicular traffic, including cars, trucks, and emergency vehicles.

**Construction Noise**

Project construction would temporarily increase noise levels and vibration at nearby residences adjacent to 4th Avenue, Railroad Avenue, and 8th Avenue and single-family residences surrounding the District's WTP property. Water line and PG&E construction activities would occur as close as 15 to 20 feet from some residences, while construction of the water tank and WTP building would occur ~200 feet from the nearest residence.

Temporary noise impacts would occur due to an increase in traffic from construction workers commuting to the site; as well as delivery of construction equipment and materials to the project site; however, it is not anticipated that worker commutes would significantly increase daily traffic volumes in the area. The principal noise impacts would be generated by construction equipment and 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*

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. Based on project characteristics, the average noise level from construction activities would be 85 dBA.

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. If the receptor is far from the noise source, other factors come into play. For example, barriers such as fences or buildings that break the line of sight between the source and the receiver typically reduce sound levels by at least 5 dBA. Likewise, wind can reduce noise levels by 20 to 30 dBA over long distances.

In the project area, improvements would occur on soft, vegetated terrain, and it is anticipated that noise would attenuate at 7.5 dBA per doubling of distance. At a distance of 15 feet, 85 dBA noise levels would increase to 98 dBA.

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.

**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 |
| 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.*

For example, if the sound from one backhoe resulted in a sound pressure level of 80 dB, the sound level from two backhoes would be 83 dB, and the sound level from three backhoes would be 84.8.

**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 dB, and the sound level from the second source is 85 dB, the level from both sources together would be 86 dB. To calculate cumulative noise for more than two sources, begin with the two lower levels to find their combined level and add their sum to the next highest level; continue until all noise sources are incorporated.

**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.*

With two pieces of equipment with a cumulative noise level of 86 dBA operating simultaneously within 15 feet of a sensitive receptor, noise levels could reach approximately 99 dBA at the exterior of single-family residences where improvements would occur.

As noted above, assuming typical California construction methods, interior noise levels are about 20 to 25 decibels lower than exterior noise levels with the windows closed. Interior noise levels could reach 74 to 79 dBA when equipment operates within 15 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. Depending on the decibel level of the alarm, interior noise levels could sporadically reach 90 to 105 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.

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, 2020).

Disregarding the noise attenuation due to intervening topography, barriers, wind, and other factors, in the worst-case scenario, during use of reverse signal alarms, interior noise levels at the nearest residences could sporadically reach 105 dBA. 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 may reach considerable levels for short instances, much of the time the construction noise levels at the nearby residences would be moderate.

Although the County's short-term noise standards identified in General Plan Standard N-S7 do not apply to heavy equipment and power tools used during construction, construction activities would result in a temporary increase in ambient noise levels in the area, and such noise could adversely impact sensitive receptors in the area; therefore, mitigation is warranted.

**MM 4.13.1** restricts construction activity to the daytime hours of 7:00 A.M. to 7:00 P.M., 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 used during construction, 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 Noise**

Project components with the potential for operational noise impacts include new pumps, motors, and mechanical equipment at the WTP site, a ventilation blower on the ground adjacent to the new water tank, and the 200-kW emergency back-up generator, septic tank STEP system, and hydropneumatic tank at the exterior of the new WTP building. The generator, STEP system, and hydropneumatic tank would be located adjacent to the north side of the building; the nearest sensitive receptor is a single-family residence ~230 feet to the northwest on the east side of Spruce Avenue. The nearest property line to the proposed improvements is the western property line, ~140 feet from the WTP.

The decibel level for a 200-kW propane generator is estimated at ~85 dBA at 50 feet, depending on the model and manufacturer. Additional outdoor equipment is expected to generate noise levels between 70-85 dBA at 50 feet.

Cumulative noise with all outdoor equipment operating simultaneously is conservatively estimated at ~89 dBA at 50 feet. At the nearest residence, noise levels could reach ~72 dBA at the exterior of the residence if no noise barrier were present. Noise levels at the nearest (western) property line could reach ~78 dBA.

The equipment would be placed on the north side of the WTP building and would be surrounded by a concrete masonry unit (CMU) wall. In addition, the WTP building is surrounded by trees. The CMU wall and trees would serve as a barrier by completely blocking the line of sight between the outdoor equipment and the residence, reducing noise levels by an estimated ~10 dBA. Thus, with no additional noise attenuation, noise levels at the nearest property line would be ~68 dBA; noise levels at the exterior of the nearest residence could reach ~62 dBA. Interior noise levels at the residence could reach ~47 dBA, provided that the windows were closed.

Because specifications for the WTP equipment are not yet available, **MM 4.13.4** is included to ensure that the project implements noise attenuation measures as necessary to ensure compliance with the County's noise standards; therefore, operational impacts would be less than significant.

Therefore, because **MM 4.13.1, MM 4.13.2, and MM 4.13.3** would minimize noise during construction, and **MM 4.13.4** ensures that operational noise will comply with the County's noise standards, impacts would be ***less than significant.***

**Question B**

Excessive vibration during construction may occur when high vibration equipment (e.g., compactors, large dozers, etc.) is operated. The proposed project may require limited use of such equipment 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 (2020) was referenced in the analysis of construction-related vibration impacts. **Table 4.13-4** identifies 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:

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

$PPV_{Equipment}$ is the peak particle velocity in inches/second of the equipment, adjusted for distance

$PPV_{Ref}$ is the reference vibration level in inches per second at 25 feet.

D is the distance from the equipment to the receptor

n is the value related to the attenuation rate through ground, based on soil class (1.5 for competent soils including most sands, sandy clays, silty clays, gravel, silts, weathered rock; 1.1 for hard soils, including dense compacted sand, dry consolidated clay, consolidated glacial till, and some exposed rock).

As stated in the Geotechnical Report, subsurface soils range in consistency from sandy clay to dry, firm clay; therefore, an attenuation coefficient of 1.1 was used for this analysis. In the worst-case scenario, a vibratory roller at a distance of 20 feet from residences adjacent to 4th Avenue would generate a PPV of 0.27 inches per second; however, use of the roller would be limited to soil compaction following installation of the pipeline.

As shown in **Table 4.13-4**, vibration levels are not anticipated to be at a level that would cause structural damage. In addition, as shown in **Table 4.13-5**, these vibration levels would be strongly perceptible but would not rise to a level that would be considered disturbing.

New equipment at the WTP site has the 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 and the nearest residence (~230 feet), it is not expected that equipment at the WTP would generate vibration that would be detectable at the nearest sensitive receptor. Therefore, impacts associated with vibration would be ***less than significant.***

**Question C**

The California Redwood Coast – Humboldt County Airport is located approximately 3.5 miles south of the project site. According to the Humboldt County Airport Land Use Compatibility Plan, no portion of the project site is located within an airport land use area. According to the Federal Aviation Administration, the project site is not located in the vicinity of a private airstrip. Therefore, the project would not expose people residing or working in the project area to excessive noise levels associated with an airport or private airstrip; there would be ***no impact.***

## CUMULATIVE IMPACTS

As documented above, a temporary increase in daytime noise levels would occur during construction activities; however, **MM 4.13.1** through **MM 4.13.3** would minimize temporary noise impacts. **MM 4.13.4** ensures that operational noise levels comply with Humboldt County noise standards. Other cumulative projects also must comply with the County's noise standards. With implementation of **MM 4.13.1** through **MM 4.13.4**, 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 Westhaven CSD District Manager 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 equipment (generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses.

**MM 4.13.4** Emergency standby generators, building mechanical equipment, and other noise-generating stationary sources shall be designed to ensure that operational noise levels at nearby sensitive receptors do not exceed applicable Humboldt County noise standards. Noise attenuation shall be implemented if determined necessary by the project engineer. Noise attenuation may include, but not be limited to, installing equipment in an enclosure that provides adequate noise attenuation, selecting low noise-generating equipment, and use of sound-rated doors, windows, and vents.

## DOCUMENTATION

**California Department of Transportation.** 2020. Transportation and Construction Vibration Guidance Manual. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf. Accessed February 2023.

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**Engineering Toolbox.** 2019. Logarithmic Decibel Scale. https://www.engineeringtoolbox.com/adding-decibel-d_63.html. Accessed July 2022.

**Federal Aviation Administration.** 2022. Airport Facilities Data. https://www.faa.gov/airports/. Accessed July 2022.

**Federal Highway Administration.** 2017. Construction Noise Handbook. https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook09.cfm. Accessed July 2022.

**Humboldt County.** 2021. Humboldt County Airport Land Use Compatibility Plan. https://humboldtgov.org/DocumentCenter/View/95080/2021-Airport-Land-Use-Compatibility-Plan-adopted-04132021-33-MB. Accessed February 2023.

**Humboldt County.** 2017. Humboldt County General Plan. https://humboldtgov.org/205/General-Plan. Accessed August 2022.

**U.S. Department of Transportation, Federal Transit Administration.** 2018. Transit Noise and Vibration Impact Assessment Manual. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed July 2022.

**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 July 2022.

# 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, State, or local regulations pertaining to population or housing that apply to the proposed project.

## 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, Specific Plan, Area Plan, etc.) and induced growth in areas that are not addressed in the applicable land use plan.

Because the proposed project does not involve construction of residences or businesses, the project would not directly induce population growth. As stated in Section 3.1 (Project Background, Need, and Objectives), due to a lack of capacity in the water system, there is a moratorium on additional water connections. Completion of the proposed project could accommodate additional connections. There are ~150 undeveloped parcels in the District's service area; however, there is no public sewer service currently available to these parcels, and it is unlikely that the undeveloped parcels are large enough to support an onsite sewage disposal system. Additional development constraints, such as topography and sensitive natural resources, would make development of the parcels challenging.

Future development would be in accordance with the growth projections identified in the Humboldt County General Plan and the development policies included in the Trinidad Area Plan of the Humboldt County Local Coastal Program (Humboldt County, 2007). Therefore, the project would not induce unplanned population growth in the area, either directly or indirectly. There would be ***no impact.***

**Question B**

No residences would be demolished to accommodate the proposed improvements; therefore, there would be ***no impact.***

## CUMULATIVE IMPACTS

As documented above, the proposed project would not induce substantial unplanned population growth in the area and would not directly or indirectly displace housing or people; therefore, it would not contribute to cumulative impacts related to population and housing.

## MITIGATION

None necessary.

## DOCUMENTATION

**Humboldt County.** 2017. Humboldt County General Plan. https://humboldtgov.org/205/General-Plan. Accessed February 2023.

_____. 2007. Humboldt County General Plan Volume II, Trinidad Area Plan of the Humboldt County Local Coastal Program. https://humboldtgov.org/DocumentCenter/View/50848/Trinidad-Area-Local-Coastal-Plan. Accessed February 2023.

# 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

**Humboldt County.** Humboldt County General Plan. https://humboldtgov.org/205/General-Plan. Accessed August 2022.

# 4.16 RECREATION

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

## 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 an increased demand for new recreational facilities. There would be ***no impact.***

## CUMULATIVE IMPACTS

The proposed project would not impact any existing recreational facilities or require construction or expansion of recreational facilities; therefore, no cumulative impacts would occur.

## MITIGATION

None necessary.

## DOCUMENTATION

**Humboldt County.** 2017. Humboldt County General Plan, Conservation and Open Space Elements. https://humboldtgov.org/DocumentCenter/View/61986/Chapter-10-Conservation-and-Open-Space-Elements-PDF. Accessed August 2022.

# 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 or local regulations pertaining to transportation/traffic that apply to the proposed project.

### STATE

#### CEQA Guidelines

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.

## DISCUSSION OF IMPACTS

#### Questions A, B, and D

There are no adopted policies, plans or programs related to the circulation system that would apply to the proposed 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. Short-term increases in traffic volume associated with construction workers and equipment on the local road network would occur during construction, and this increased traffic could interfere with emergency response times. However, as discussed under Section 4.9, Question F, temporary traffic control would be required and must adhere to the procedures, methods, and guidance given in the current edition of the California Manual on Uniform Traffic Control Devices (California MUTCD).

Additionally, the proposed project does not include any components that would permanently increase the potential for hazards due to a design feature or incompatible uses. Because no permanent impacts to the circulation system would occur, and safety measures would be employed to safeguard travel by the general public and emergency response vehicles during construction, impacts would be ***less than significant***.

**Question B**

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. There would be an increase in VMT due to construction workers traveling to and from the project site; however, this is a temporary impact and would cease at completion of the project. Therefore, impacts related to VMT would be ***less than significant.***

## CUMULATIVE IMPACTS

The proposed project would not result in a permanent increase in traffic or VMT and would not conflict with programs, plans, ordinances, or policies addressing the circulation system.

There would be a temporary increase in traffic associated with construction works and equipment during construction. However, as discussed in Section 4.9 under Question F, pursuant to Cal/OSHA requirements, temporary traffic control for all projects that require work in the public right-of-way would be required and must adhere to the procedures, methods, and guidance given in the current edition of the MUTCD. Specific requirements for traffic safety measures would be included in the District's contract documents.

Therefore, the project's traffic impact would not be cumulatively considerable because the project would not result in a permanent increase in traffic or VMT, construction traffic would be a temporary impact that would cease at completion of the project, and all cumulative projects would be required to implement safety measures to protect the traveling public during construction.

## MITIGATION

None necessary.

## DOCUMENTATION

**California Department of Transportation.** 2021. California Manual on Uniform Traffic Control Devices. https://dot.ca.gov/programs/safety-programs/camutcd. Accessed February 2023.

# 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 Section 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 PRC Section 5024.1(c)? In applying the criteria set forth in PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☒ | ☐ | ☐ |

## REGULATORY CONTEXT

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

### STATE

#### California Environmental Quality Act

Assembly Bill 52 of 2014 (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 the tribe requested to the lead agency, in writing, 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.

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 included or determined to be eligible for inclusion in the CRHR; or are 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).

In addition, a cultural landscape that meets one of these criteria is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. 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 one of these criteria.

## LOCAL

### Humboldt County

The County's General Plan includes the following Goal, Policies, and Standards that apply to the proposed project:

| Conservation and Open Space Element – Cultural Resources | | |
|---|---|---|
| | CU-G1 | Protected and enhanced significant cultural resources, providing heritage, historic, scientific, educational, social, and economic values to benefit present and future generations. |
| **Policies** | CU-P1 | The potential for impacts to significant cultural resources shall be identified during ministerial permit and discretionary project review, impacts assessed as to significance, and if found to be significant, protected from substantial adverse change per California Public Resources Code (PRC) §5020.1. |
| | CU-P2 | Native American Tribes shall be consulted during discretionary project review for the identification, protection, and mitigation of adverse impacts to significant cultural resources. Consultation on ministerial permits shall be initiated if it has been determined the project may create a substantial adverse change to a significant cultural resource. At their request, Tribes shall be afforded the opportunity to review and provide comments to the County early in project review and planning (screening) about known or potential Tribal cultural resources located in project areas within their respective tribal geographical area of concern. |
| | CU-P3 | Historic preservation agencies and organizations shall be consulted during discretionary project review for the identification, protection, and mitigation of adverse impacts to significant cultural resources.<br><br>These include, but may not be limited to, the County's Cultural Resources Advisory Committee, Humboldt County Public Works Department and the Planning and Building Divisions, the Northwest Information Center of the California Historical Resources Information System (NWIC), the California Office of Historic Preservation, the Native American Heritage Commission, local historical societies, museums, colleges and universities, and incorporated cities historic preservation commissions or committees for their respective LAFCO sphere of influence, and local historians, cultural resources consultants, and historic preservation staff affiliated with various state and federal agencies. |
| | CU-P4 | Projects located in areas known, or suspected to be archeological sites or Native American burial sites shall be conditioned and designed to avoid significant impacts to significant sites, or disturbance or destruction to Indian burial grounds. Preserving Native American remains undisturbed and in place shall be selected as the preferred alternative unless substantial factual evidence is presented demonstrating that no alternative(s) are feasible.<br><br>Conditions of approval shall include standard provisions for post-review inadvertent archaeological discoveries and discovery and respectful treatment and disposition of Native American remains with or without funerary objects in accordance with state law (Health and Safety Code (HSC) §7050.5 and PRC §5097.98). |

| | | |
|---|---|---|
| | CU-P5 | Substantial adverse changes to significant cultural resources shall not be allowed through a ministerial or discretionary action unless:<br>A. The cultural resource has been found not to be significant based on consultation with culturally affiliated Native American Tribe(s) and other historic preservation agencies and organizations as required by CU-P2; or<br>B. There is an overriding public benefit from the project, and compensating mitigation to offset the loss is made part of the project. |
| | CU-P6 | Mitigation measures shall be required for any permitted project or County action that would adversely impact significant cultural resources. |
| **Standards** | CU-S2 | As prescribed by California Public Records Act, Government Code § 6250 et seq., and the Information Practices Act of 1977, Civil Code §1798 et. seq., the exact location of Native American grave sites, burial grounds, sacred sites, sensitive cultural places, and prehistoric and historic archaeological sites shall not be publicly disclosed in order to prevent the possibility of theft or vandalism. |
| | CU-S5 | A professional archaeologist meets the Secretary of the Interior's Professional Qualification standards for Archaeology Principal Investigator and the explicit education and experience qualification standards adopted by the Society for California Archaeology in 2012. The professional archaeologist shall make a good faith effort to inform and include the descendant community in all aspects of their work, as applicable, to respect sensitive or confidential information, and to integrate the community's policies and practices in respectful handling of archaeological material. |
| | CU-S6 | For discretionary projects, a records check will be conducted by staff, and if no listing or survey for eligibility has been done, an initial screening will be conducted to determine whether there is a potential for significant historic structures, buildings, or districts to be significantly impacted by the project. Where it is found that there is a potential for significant adverse impacts, an historic architectural resources report meeting the Secretary of the Interior's Standards for Historic Preservation prepared by a qualified professional shall be required. The report shall assess the presence, extent, condition, and explicit significance values of all extant cultural resources and the likely impact upon such resources found to qualify as significant historical resources under CEQA. The report shall include recommendations for avoiding and/or mitigating identified significant adverse impacts. |
| | CU-S7 | The conclusions, findings and recommendations of the Historic Architectural Report and other types of cultural resources reports shall be evaluated during the project review process including referral for comments from the advisory Cultural Resources Committee. The Cultural Resources Committee will make recommendations on cultural resources to County staff and the Planning Commission. Applicants shall be encouraged to plan projects to avoid substantial adverse change to significant cultural resources, otherwise*,* mitigation measures shall be required to lessen the impacts to a less than significant level*.* |

## DISCUSSION OF IMPACTS

### Questions A and B

See discussion in Section 1.8 (Tribal Cultural Resources Consultation) and Section 4.5 under Questions A and B.

On February 13, 2019, Westhaven Community Services District received a written request from the Karuk Tribe to be notified of proposed projects in their geographical area; according to the map included in the letter from the Karuk Tribe, the project site is not located within the Tribe's geographic area. Therefore, consultation pursuant to PRC §21084.2 (AB 52, 2014) is not required for the proposed project.

As discussed in Section 4.5, ENPLAN contacted Native American tribes that were identified by the Native American Heritage Commission (NAHC) on August 20, 2021, with a request to provide comments on the proposed project. No responses were received from any Native American tribe. In addition, the District, as lead agency, has not identified any resources in the project area that would be significant to a California Native American tribe.

**Mitigation Measures MM 4.5.1 and 4.5.2** address the inadvertent discovery of cultural resources and human remains. 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. 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. 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. 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.

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

**DZC.** 2023. Cultural Resources Inventory Report: Westhaven Community Services District Disinfection Byproduct Reduction Product, Humboldt County, California.

**Humboldt County.** 2017. Humboldt County General Plan. https://humboldtgov.org/205/General-Plan. Accessed August 2022.

# 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

#### Humboldt County

The County's General Plan includes the following Goal, Policies, and Standards that apply to the proposed project:

| Community Infrastructure and Services Element | | |
|---|---|---|
| **Goals** | IS-G1 | Well maintained public infrastructure and services supporting existing development. |

| | | |
|---|---|---|
| | IS-G3 | Coordinated planning, prioritization, funding, and implementation of infrastructure and public service projects across jurisdictional boundaries. |
| **Policy** | IS-P1 | The County shall work cooperatively with cities and service providers to identify needs and service limitations, secure funding, and implement infrastructure and public service projects consistent with this Plan and capital improvement plans. |
| **Standards** | IS-S3 | Policies of this Plan which avoid or mitigate environmental effects shall be considered by CEQA lead agencies and federal agencies conducting NEPA evaluations in the evaluation of the environmental impacts of proposed infrastructure projects. Policy conflicts should be considered potentially significant land use impacts pursuant to California Public Resources Code 21083 and Code of Federal Regulations Title 40, Part 6. |

## 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 in a manner that would require additional long-term water supplies. The project area is not served by a public wastewater system. 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 Humboldt Waste Management Authority (HWMA) coordinates solid waste management and disposal services for six member agencies, including Humboldt County (unincorporated areas). HWMA owns and operates the Hawthorne Street Transfer Station, the former Eureka Recycling Center, and the Cummings Road Landfill (undergoing closure). Member agencies contract with solid waste haulers to provide curbside collection. Collected waste is directed to the Hawthorne Street Transfer Station. The Hawthorne Street Transfer Station also accepts self-hauled material, including general municipal waste, construction waste, mixed-stream recycling, green waste, asbestos, and other wastes (HWMA, 2022).

The Hawthorne Street Transfer Station is permitted through the California Integrated Waste Management Board (CIWMB). The maximum permitted capacity is 200,750 tons per year. The maximum permitted throughput is 550 tons per day (CIWMB, 2022). The Transfer Station is subject to monthly inspections by Humboldt County to ensure compliance with the CIWMB permit. The Transfer Station receives approximately 85,000 tons of solid waste per year (200 tons per day). Solid waste is loaded into trailers and transported to the Dry Creek Landfill in southern Oregon for disposal. The Dry Creek Landfill has capacity to receive and manage solid waste for approximately 100 years at their current disposal rate (HWMA, 2022).

Solid waste and construction debris generated during construction would be hauled to the Hawthorne Street Transfer Station, located approximately 17 miles south of the project site. As indicated above, the Transfer Station and Dry Creek Landfill have adequate capacity to accept waste generated during construction. The proposed project would not result in a significant increase in solid waste generation above existing conditions; therefore, no long-term impacts to the Hawthorne Street Transfer Station

or Dry Creek Landfill would occur. As stated in Section 3.0 (Project Description), existing Tank 2 would be repurposed into a backwash/sludge containment tank. Thickened sludge would be removed from the converted tank using a tanker and hauled to the City of Eureka Wastewater Treatment Plant for disposal.

The construction contractor would be responsible for recycling and/or 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. Given the relatively small volume of waste that would be generated and compliance with all applicable regulations related to solid waste disposal, impacts would be ***less than significant.***

## CUMULATIVE IMPACTS

As documented above, utility and service systems in the area would not experience a significant increase in demand over existing conditions. Although solid waste would be generated during construction, the Hawthorne Street Transfer Station and Dry Creek Landfill have adequate capacity to accommodate construction waste. In the long term, the increase in solid waste generation would not be significant. The project and cumulative projects are required to comply with State and local regulations pertaining to solid waste disposal. Therefore, the project would have less-than-significant cumulative impacts to utility and service systems.

## MITIGATION

None necessary.

## DOCUMENTATION

**California Integrated Waste Management Board.** 2022. SWIS Facility/Site Details, Hawthorne Street Transfer Station. https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/517. Accessed March 2023.

**Humboldt Waste Management Authority (HWMA).** 2022. Humboldt Waste Management Authority Board Member Handbook, Fiscal Year 2022-23. https://static1.squarespace.com/static/61fc2dfecb5eff68b6ff2951/t/640653b0c3f69330a5b6c905/1678136276705/02092023+HWMA+Board+Packet+. Accessed March 2023.

_____. 2017. Humboldt County General Plan Environmental Impact Report, Chapter 3.3, Utilities and Services. https://humboldtgov.org/DocumentCenter/View/58832/Section-33-Utilities-and-Services-Revised-DEIR-PDF. Accessed March 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. Proposed improvements are located within an SRA Moderate FHSZ.

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 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

### Humboldt County

The County's General Plan includes the following Goals, Policies, and Standards that apply to the proposed project:

| Safety Element | | |
|---|---|---|
| **Goals** | S-G2 | Areas of geologic instability, floodplains, tsunami run-up areas, high risk wildland fire areas, and airport areas planned and conditioned to prevent unnecessary exposure of people and property to risks of damage or injury. |
| | S-G4 | Development designed to reduce the risk of structural and wildland fires supported by fire protection services that minimize the potential for loss of life, property, and natural resources. |
| **Policies** | S-P1 | Plan land uses and regulate new development to reduce the potential for loss of life, injury, property damage, and economic and social dislocations resulting from natural and manmade hazards, including but not limited to, steep slopes, unstable soils areas, active earthquake faults, wildland fire risk areas, airport influence areas, military operating areas, flood plains, and tsunami run-up areas. |
| | S-P2 | Development within the coastal zone shall minimize risks to life and property in areas of high geologic, tsunami, flood, and fire hazard; assure stability and structural integrity; and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding areas or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. |
| | S-P19 | Conformance with State Responsibility Areas (SRA) Fire Safe Regulations: Development shall conform to Humboldt County SRA Fire Safe Regulations. |
| **Standards** | S-S9 | Development within SRA shall conform to SRA Fire Safe Regulations (Humboldt County Code, Division 11 of Title III as amended). |
| | S-S10 | New construction shall conform to the most recently adopted California building codes. |
| | S-S11 | The California Fire Code shall be applied to all applicable development. |
| | S-S12 | The County shall use the most recently adopted CALFIRE Fire Hazard Severity Zone Maps for fire planning and local land use and development review purposes. |

## DISCUSSION OF IMPACTS

According to Fire Hazard Severity Zones (FHSZ) maps prepared by CAL FIRE, proposed improvements are located within an SRA Moderate FHSZ.

### 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 emergency response or emergency evacuation plans in the long term. 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. Temporary traffic control during completion of activities that require work in the road right-of-way would be required and must adhere to the procedures, methods and guidance given in the current edition of the MUTCD. Implementation of traffic control measures during construction ensures impacts are ***less than significant***.

### Questions B and C

In the long-term, the proposed improvements would improve the ability to provide fire suppression in the area; the project would increase water storage thereby improving fire flows. 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 the replacement of existing poles and installation of new electrical line along 4th Avenue from the District's WTP site boundary to Railroad Avenue, along Railroad Avenue from 4th Avenue to 8th Avenue, and along 8th Avenue from Railroad Avenue to South Westhaven Drive. Overhead electrical line would be installed from an existing power pole at the WTP site to a new PG&E power pole with an overhead transformer off-site; however, this would not exacerbate the risk of wildfires in the area.

There are no features in the study area, such as slope, prevailing winds, or other factors that would exacerbate wildfire risks in a manner that would expose people living and working in the area to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire.

As stated in Section 4.9 under Question G, the project is located within an SRA Moderate FHSZ, and 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. Compliance with existing regulations would avoid/minimize the risk of wildfires and the exposure of people and structures to wildland fires. Therefore, impacts during construction would be ***less than significant.***

**Question D**

The severity of post-fire risks is based on the intensity of the fire, the slope and stability of the burned area, physical properties of the soils, and the intensity of post-fire rainfall. New structures most at risk due to fire or post-fire effects would be the WTP building and water tank. These facilities would be installed in relatively level areas with a low risk of impacts associated with downslope/downstream flooding or landslides that could result from runoff, slope instability, or drainage changes. Additionally, the project site and surrounding areas have not been subject to recent wildfire burns such that these improvements would be affected by project implementation. Therefore, impacts would be ***less than significant***.

## CUMULATIVE IMPACTS

The proposed project and 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. Because all projects must provide adequate access during construction, 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 or post-fire hazards. Compliance with CBC and CFC standards would minimize the cumulative risk of wildfire ignition and spread. Further, project implementation would have a positive effect on fire suppression capabilities due to increased water storage, increased fire flows, and installation of fire hydrants on 4th Avenue. Therefore, the project's cumulative contribution to increased risks associated with wildfire would be less than significant.

## MITIGATION

None necessary.

## DOCUMENTATION

**California Board of Forestry and Fire Protection.** 2020. Strategic Fire Plan Humboldt-Del Norte Unit https://osfm.fire.ca.gov/media/dlhhftr0/2020-huu-fire-plan.pdf. Accessed February 2023.

**California Department of Forestry and Fire Protection (CAL FIRE).** n.d. Fire Hazard Severity Zone Viewer. https://egis.fire.ca.gov/FHSZ/. Accessed February 2023.

**Humboldt County.** 2017. Humboldt County General Plan. https://humboldtgov.org/205/General-Plan. Accessed August 2022.

# 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 would result in temporarily increased air emissions, possible impacts on special-status wildlife species, disturbance of nesting birds (if present), loss of trees, the introduction and spread of noxious weeds during construction, possible impacts on wetlands and/or other waters of the U.S./State, impacts on cultural resources and tribal cultural resources (if present), impacts on paleontological resources, and temporarily increased noise and vibration 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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Thomas Warnock, P.E. .....Principal Engineer

# SECTION 6.0 ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| AB | Assembly Bill |
| APCD | Air Pollution Control District |
| APCO | Air Pollution Control Office |
| APE | Area of Potential Effects |
| AQMD | Air Quality Management District |
| ATCM | Airborne Toxic Control Measure |
| | |
| BACT | Best Available Control Technology |
| BMP | Best Management Practice |
| | |
| CAA | Clean Air Act |
| CAAQS | California Ambient Air Quality Standards |
| CalARP | California Accidental Release Prevention |
| 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 |
| 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 |
| $CH_4$ | Methane |
| CNDDB | California Natural Diversity Data Base |
| CO | Carbon Monoxide |
| $CO_2$ | Carbon Dioxide |
| $CO_2e$ | Carbon Dioxide Equivalent |
| County | Humboldt County |
| CRHR | California Register of Historical Resources |
| CSD | Westhaven Community Services District |
| CWA | Clean Water Act |
| CY | Cubic Yards |
| | |
| dBA | Decibels (A-weighted) |
| DBH | Diameter at Breast Height |
| District | Westhaven Community Services District |
| DOC | Department of Conservation |
| DPS | Distinct Population Segment |

| | |
|---|---|
| DTSC | California Department of Toxic Substances Control |
| DWSRF | Drinking Water State Revolving Fund |
| DZC | DZC: Archaeology and Cultural Resource Management |
| EO | Executive Order |
| FEMA | Federal Emergency Management Act |
| FESA | Federal Endangered Species Act |
| FHSZ | Fire Hazard Severity Zone |
| FMMP | Farmland Mapping and Monitoring Program |
| GHG | Greenhouse Gas Emissions |
| GURU | Geographic Ultramafic Rock Unit |
| GWP | Global Warming Potential |
| $H_2S$ | Hydrogen Sulfide |
| HCP | Habitat Conservation Plan |
| HFC | Hydrofluorocarbons |
| HPZ | High-Pressure Zone |
| HSC | California Health and Safety Code |
| I&I | Infiltration and Inflow |
| IBC | International Building Code |
| IS | Initial Study |
| LRA | Local Responsibility Area |
| MACT | Maximum Achievable Control Technology |
| MCL | Maximum Contaminant Level |
| $mg/m^3$ | Milligrams per Cubic Meter |
| MND | Mitigated Negative Declaration |
| MRZ | Mineral Resource Zone |
| MC4s | Small Municipal Separate Storm Sewer Systems |
| MUTCD | California Manual on Uniform Traffic Control Devices |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NCCP | Natural Community Conservation Plan |
| NCUAQMD | North Coast Unified Air Quality Management District |
| NEHRA | National Earthquake Hazards Reduction Act |
| NEMA | National Electrical Manufacturers Association |
| NEPA | National Environmental Policy Act |
| $NF_3$ | Nitrogen Trifluoride |
| NHPA | National Historic Preservation Act |

| | |
|---|---|
| NMFS | National Marine Fisheries Service |
| $N_2$ | Nitrogen gas |
| $N_2O$ | Nitrous Oxide |
| NO | Nitric Oxide |
| NOA | Naturally Occurring Asbestos |
| $NO_2$ | 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 |
| NWIC/CHRIS | Northwest Information Center of the California Historical Resources Information System |
| NWP | Nationwide Permit |
| NCRWQCB | North Coast Regional Water Quality Control Board |
| | |
| $O_2$ | Oxygen gas |
| $O_3$ | Ozone |
| OHWM | Ordinary High Water Mark |
| OSHA | Occupational Safety and Health Act |
| | |
| Pb | Lead |
| PFC | Perfluorocarbons |
| PG&E | Pacific Gas and Electric Company |
| $PM_{2.5}$ | 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 | Westhaven CSD Disinfection Byproduct Reduction Project |
| PVC | Polyvinyl Chloride |
| PWWF | Peak Wet Weather Flow |
| | |
| RCRA | Resource Conservation and Recovery Act |
| RMP | Risk Management Plan |
| ROG | Reactive Organic Gases |
| RWQCB | Regional Water Quality Control Board |
| | |
| SAA | Streambed Alteration Agreement |
| SB | Senate Bill |
| SCADA | Supervisory Control and Data Acquisition |
| $SF_6$ | Sulfur Hexafluoride |
| SHPO | State Historic Preservation Officer |
| SIP | State Implementation Plan |

| | |
|---|---|
| SMARA | The Surface Mining and Reclamation Act |
| $SO_2$ | Sulfur Dioxide |
| $SO_4$ | Sulfate |
| $SO_X$ | Sulfur Oxides |
| SRA | State Responsibility Area |
| SSF | Slow Sand Filter |
| SWPPP | Stormwater Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| TAC | Toxic Air Contaminants |
| USACE | United States Army Corps of Engineers |
| USEPA | United States Environmental Protection Agency |
| USFS | United States Forest Service |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| VMT | Vehicle Miles Travelled |
| WDRs | Waste Discharge Requirements |
| WWTP | Wastewater Treatment Plant |
| $\mu g/m^3$ | Micrograms per Cubic Meter |

# SECTION 3.0 PROJECT DESCRIPTION

## 3.1 PROJECT BACKGROUND, NEED, AND OBJECTIVES

The Westhaven Community Services District (District) owns and operates Small Water System No. CA1210024 in the unincorporated community of Westhaven in Humboldt County. The water system was originally constructed in 1933 and was operated by a series of private water companies. The Westhaven Mutual Water Company (WMWC) was formed in 1968; at that time, the system was comprised of an earthen reservoir fed by a small stream known locally as Two Creek, and a very rudimentary distribution system.

Between 1968 and 1974, WMWC sold 186 shares in the company, each share entitling one water service connection, with water promised to 12 additional "idle" shares. The WMWC system was operated without filtration, adequate disinfection, or any facility for storage of treated water. Beginning in 1978, the WMWC came under increasing pressure from the State to construct water treatment and storage facilities to provide water that met federal and State drinking water standards. The District was formed on October 27, 1987, and assumed ownership and operation of all of WMWC's water facilities.

According to the District's Municipal Services Review/Sphere of Influence update (MSR/SOI) adopted by the Humboldt Local Agency Formation Commission on May 19, 2021[1], the District's service area boundary encompasses ~0.6 square miles and the population within the District boundaries was estimated at 517 in 2020. In 2020, the District had 232 connections consisting of 229 single-family residences and three non-residential uses (a church, Center for the Arts, and Volunteer Fire Department Community Hall).

There are currently ~70 homes within the service area boundary that are not currently served by the District; due to a lack of capacity in the water system, there is a moratorium on additional water connections. There are also ~150 undeveloped parcels in the District's service area that are likely unable to support an onsite sewage disposal system due to inadequate size and/or location, and these parcels are likely not developable at this time.

### Existing Water Supply and System

The District's water supply is a combination of surface water and groundwater. In 2019, 63 percent of the water supply was from surface water and the remaining 37 percent was from groundwater.

Groundwater from a 100-foot deep well on 4th Avenue west of Transit Avenue is pumped to an on-site chlorination building where it is treated through a calcite tank to raise the pH and then disinfected using sodium hypochlorite.

The 4th Avenue well has slightly better water quality than that obtained from surface water sources. Groundwater is piped directly into the distribution system; therefore, it is not effectively blended with the surface water to reduce disinfection byproducts (DBPs) throughout the distribution system.

*4th Avenue Well*

[1] Humboldt Local Agency Formation Commission, *Westhaven Community Services District Municipal Services Review and Sphere of Influence Update. May 19, 2021.* https://humboldtlafco.org/wp-content/uploads/Westhaven-MSR_Adopted-05-19-2021.pdf

*Existing Glass-Fused Bolted Steel Tank*

Surface water is obtained from three spring-fed tributaries of Two Creek. Surface water is collected through three water diversion collectors located east of the WTP site. Raw water from the three collectors is fed by gravity flow through a distribution box to two slow sand filters run in parallel. After filtration, water is disinfected inline using sodium hypochlorite.

Treated water is stored in two storage tanks: a ~87,000-gallon glass-fused bolted steel tank (Tank 1) that was constructed in September 2017, and a ~100,000-gallon in-ground concrete tank (Tank 2) that was constructed in 1984 (a tank poly liner was added in 1991 and a metal roof added in 2017). Stored water is distributed to the District's pressure zones by gravity and through use of the High-Pressure Zone (HPZ) Pump Station that is located on the WTP property.

*Existing In-Ground Concrete Tank*

| | | |
|---|---|---|
| **Standards** | N-S1 | The Land Use/Noise Compatibility Standards (Table 13-C) shall be used as a guide to ensure compatibility of land uses. Development may occur in areas identified as "normally unacceptable" if mitigation measures can reduce indoor noise levels to "Maximum Interior Noise Levels" and outdoor noise levels to the maximum "Normally Acceptable" value for the given Land Use Category. |

**Humboldt County General Plan Noise Element Table 13-C**
**(Land Use/Noise Compatibility Standards)**

**Clearly Acceptable** | **Normally Acceptable** | **Normally Unacceptable** | **Clearly Unacceptable**

| Land Use Category | Maximum Interior Noise Levels | 50 - 60 | 61 - 70 | 71 - 80 | 81 – 90 | 91+ |
|---|---|---|---|---|---|---|
| Single-Family Residential, Duplex, Mobile Homes | 45 | | | | | |
| Churches | 45 | | | | | |
| Commercial, Industrial, Manufacturing, Utilities | - | | | | | |
| Public Right-of-Way | - | | | | | |

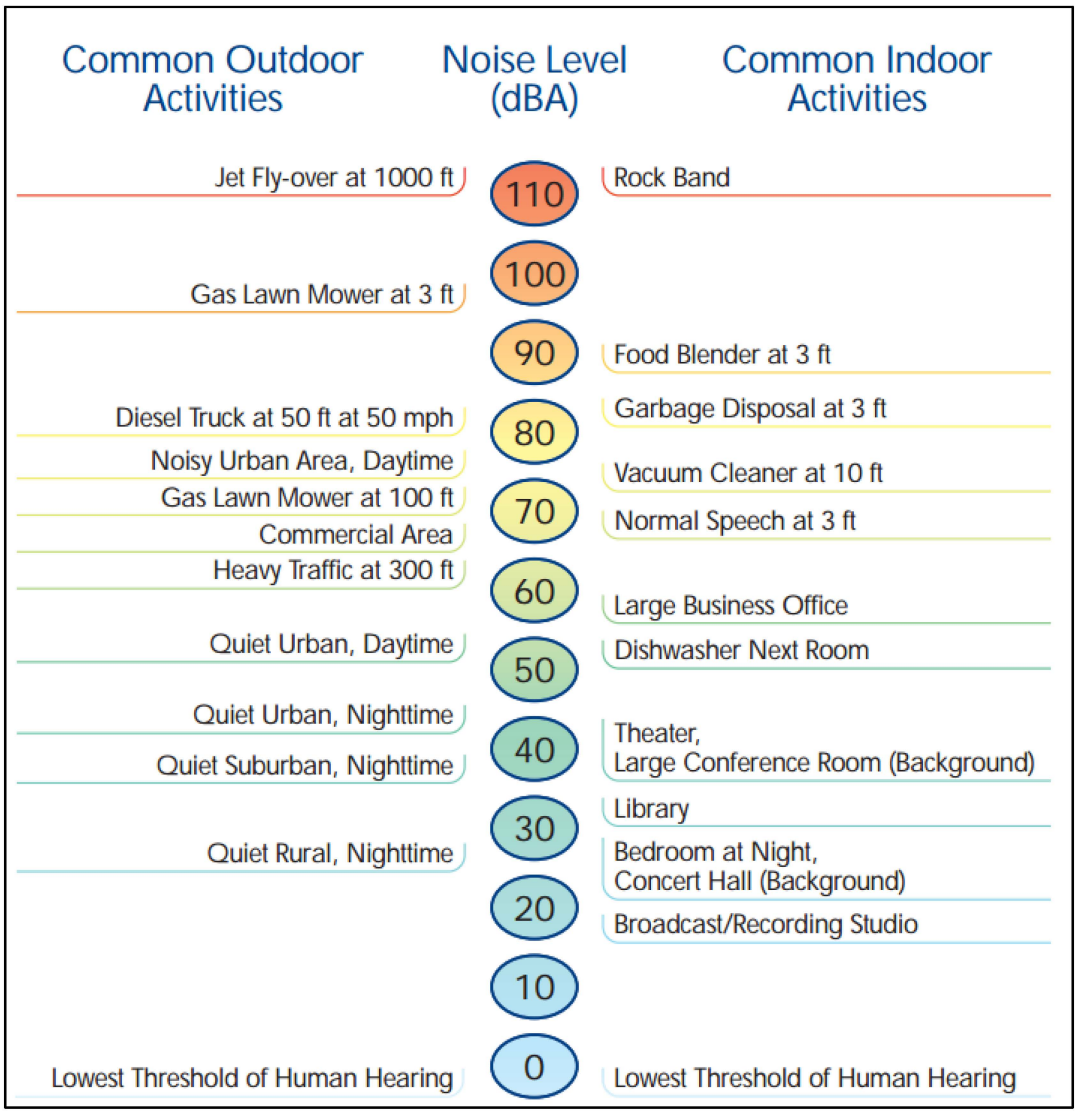
| | | |
|---|---|---|
| | N-S3 | For noise sensitive locations where noise contours do not exist, the environmental review process required by the California Environmental Quality Act shall be utilized to generate the required analysis and determine the appropriate mitigation per Plan and state standards. Future noise levels shall be predicted for a period of at least 10 years from the time of building permit application. |
| | N-S4 | When a discretionary project has the potential to generate noise levels in excess of Plan standards, a noise study together with acceptable plans to assure compliance with the standards shall be required. The noise study shall measure or model as appropriate, Community Noise Equivalent Level (CNEL) and Maximum Noise Level (Lmax) levels at property lines and, if feasible, receptor locations. Noise studies shall be prepared by qualified individuals using calibrated equipment under currently accepted professional standards and include an analysis of the characteristics of the project in relation to noise levels, all feasible mitigations, and projected noise impacts.<br><br>The Noise Guidebook published by the U.S. Department of Housing and Urban Development, or its equivalent, shall be used to guide analysis and mitigation recommendations. |
| | N-S5 | Noise reduction shall be required as necessary in new development to achieve a maximum of 45 CNEL (Community Noise Equivalent Level) interior noise levels in all habitable rooms per California building standards. |

**Construction Noise**

Project construction would temporarily increase noise levels and vibration at nearby residences adjacent to 4th Avenue, Railroad Avenue, and 8th Avenue and single-family residences surrounding the District's WTP property. Water line and PG&E construction activities would occur as close as 15 to 20 feet from some residences, while construction of the water tank and WTP building would occur ~200 feet from the nearest residence.

Temporary noise impacts would occur due to an increase in traffic from construction workers commuting to the site; as well as delivery of construction equipment and materials to the project site; however, it is not anticipated that worker commutes would significantly increase daily traffic volumes in the area. The principal noise impacts would be generated by construction equipment and 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*