PROPOSED MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY

Sky View County Water District
Water System Improvements Project

Prepared for:

Sky View County Water District

February 2022

32-72

ENPLAN

3179 Bechelli Lane Suite 100
Redding, CA 96002

PROPOSED MITIGATED NEGATIVE DECLARATION

LEAD AGENCY:	Sky View County Water District
PROJECT PROPONENT:	Sky View County Water District
PROJECT NAME:	**Water System Improvements Project**
PROJECT SUMMARY:	The proposed project includes improvements to the Sky View County Water District water distribution system. Improvements include replacing the existing well building, raising the well casing by 18 inches, installing a new vertical turbine pump, constructing an access stairway across Paynes Creek to improve access for maintenance, and installing a production flow meter. Approximately 2,130 feet of existing 8-inch diameter transmission main between the well and the proposed water tank on Ponderosa Way would be replaced with a 6-inch diameter pipe. Approximately 16,200 feet of existing water line would be replaced, along with associated meters, services, and fire hydrants. Additionally, the District is extending its distribution system to serve residents on Canyon View Loop, north of Highway 36. Improvements associated with the extension of service include installing ±12,500 feet of new waterline, as well as new water services, meters, and fire hydrants; constructing a new water tank off of Canyon View Loop; and constructing a new booster pump station. The purpose of the proposed project is to replace aging infrastructure, improve fire flows and fire protection, reduce ongoing maintenance costs, improve redundancy, improve distribution capacity, and ensure a safe and reliable potable water supply for customers in the District's water service area.
LOCATION:	The project is located in an unincorporated area of Tehama County, generally 35 miles northeast of Red Bluff, between the unincorporated communities of Paynes Creek and Mineral. *See **Figure 1** of the Initial Study.*

Findings / Determination

As documented in the Initial Study, project implementation could result in temporarily increased air emissions, possible impacts on special-status wildlife species and riparian habitat, disturbance of nesting birds (if present), 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), exposure of structures (wellhouse, access stairway, and transmission main) to flood flows, impacts associated with unstable soils, erosion, and runoff, 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. Because the Sky View County Water 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.

The final Mitigated Negative Declaration was adopted by the Board of Directors of the Sky View County Water District on _____, 2022.

INITIAL STUDY

WATER SYSTEM IMPROVEMENTS PROJECT

SKY VIEW COUNTY WATER DISTRICT

TEHAMA COUNTY, CALIFORNIA

LEAD AGENCY:

Sky View County Water District
33731 Ponderosa Way
Paynes Creek, CA 96075
530.597.2913

PREPARED BY:

ENPLAN
3179 Bechelli Lane, Suite 100
Redding, CA 96002
530.221.0440

February 2022

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SECTION 1.0 INTRODUCTION

1.1 PROJECT SUMMARY

Project Title:	**Water System Improvements Project**
Lead Agency Name and Address:	**Sky View County Water District** 33731 Ponderosa Way Paynes Creek, CA 96075
Contact Person and Phone Number:	**Timothy R. Taylor, General Manager** 530.597.2913
Lead Agency's Environmental Consultant:	**ENPLAN** 3179 Bechelli Lane, Suite 100 Redding, CA 96002

As described in Section 3.2 (Project Improvements/Physical Improvements), the project includes improvements to existing components of the Sky View County Water District's water system and an extension of the water system to residences on Canyon View Loop north of Highway 36.

1.2 PURPOSE OF STUDY

The Sky View County Water District (District), as Lead Agency, has prepared this Initial Study to provide the general public and interested public agencies with information about the potential environmental impacts of the proposed Water System Improvements Project (project). This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (as amended), codified in California Public Resources Code (PRC) §21000 et seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. Pursuant to these regulations, this Initial Study identifies potentially significant impacts and, where applicable, includes mitigation measures that would reduce all identified environmental impacts to less-than-significant levels. This Initial Study supports a Mitigated Negative Declaration (MND) pursuant to CEQA Guidelines §15070.

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

1.3 EVALUATION TERMINOLOGY

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

- **No Impact.** The proposed project will not have any measurable environmental impact on the environment.
- **Less-Than-Significant Impact.** The proposed project has the potential to impact the environment; however, this impact will be below established thresholds of significance.

- **Potentially Significant Impact Unless Mitigation Incorporated.** The proposed project has the potential to generate impacts which may be considered a significant effect on the environment; however, mitigation measures or changes to the proposed project's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact**. The proposed project will have significant impacts on the environment, and additional analysis is required to determine if it is feasible to adopt mitigation measures or project alternatives to reduce these impacts to less than significant levels.

1.4 ORGANIZATION OF THE INITIAL STUDY

This document is organized into the following sections:

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

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

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

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

Section 5.0: **List of Preparers**

Section 6.0: **Abbreviations and Acronyms**

Appendices: Contains information to supplement Section 4.0.

1.5 PROJECT LOCATION

As shown in **Figure 1**, Project Vicinity Map, the project site is located in an unincorporated area of Tehama County, generally 35 miles northeast of Red Bluff, between the unincorporated communities of Paynes Creek and Mineral, in Sections 20, 21, 22, 29, and 30, Township 29 North, Range 2 East, of the U.S. Geological Survey (USGS) Finley Butte and Lyonsville 7.5-minute quadrangles. Latitude 40° 20' 40.47" N; Longitude -121° 45' 32.01" W (centroid).

Improvements would occur on both the north and south sides of State Highway 36 (Highway 36). As shown in **Figure 2**, proposed improvements on the north side of Highway 36 would occur in the public road right-of-way (ROW) of Canyon View Loop, and near the upper (eastern) intersection of Canyon View Loop and Highway 36; proposed improvements on the south side of Highway 36 would occur within the Ponderosa Sky Ranch Subdivision in the public road ROW of Navion Road, Ponderosa Way, Vanguard Avenue, Snark Lane, Jupiter Avenue, Cessna Avenue, Summit Road, Ruth Lane, Piney Lane, and Explorer Road; and on the District's existing well and water tank sites. Improvements would also occur within public utility easements on private property and within District property. The transmission main extension under Highway 36 would be within Caltrans' ROW.

Temporary staging of construction equipment and materials would vary depending on the location of construction activity. For construction work within the roadways, staging would occur in the affected road ROW throughout the project area. For construction occurring in cross-country areas, staging would occur adjacent to the well site and the water tank site. No physical improvements are needed to establish the staging areas.

Assessor's Parcel Numbers. Ponderosa Way Tank Site: 013-220-043; Canyon View Loop Tank Site: 013-170-029; Water Transmission Main: 013-220-042; Well Site: 013-220-041; water lines, water services, water meters, and fire hydrants: public road ROW and public utility easements.

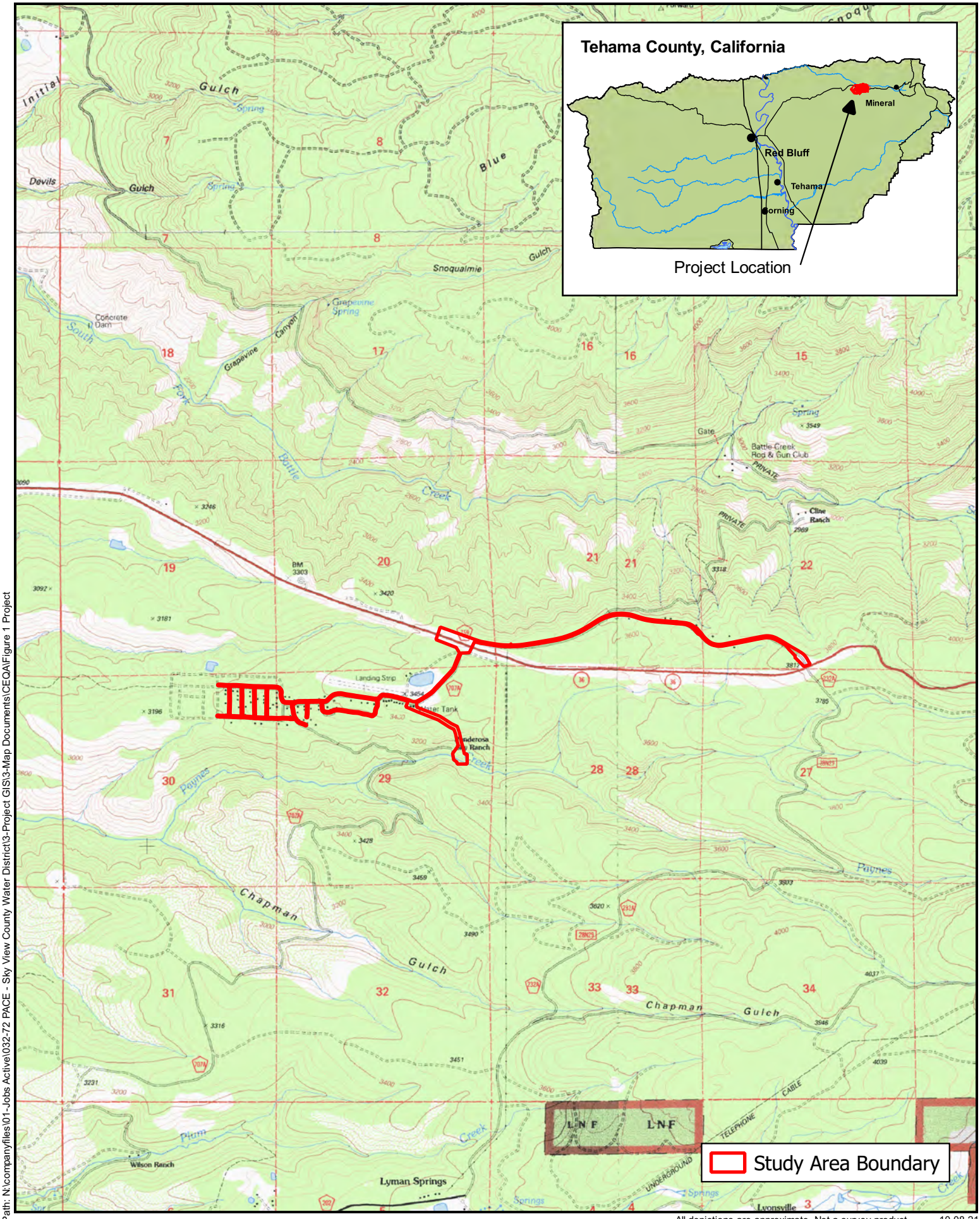

Figure 1

Project Location and Vicinity

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Path: N:\company\files\01-Jobs Active\032-72 PACE - Sky View County Water District\3-Project GIS\3-Map Documents\CEQA\Figure 2 - Proposed Improvements 110321.qgz

11.03.21

0 600 1,200 Feet

Figure 2

Proposed Improvements

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1.6 ENVIRONMENTAL SETTING

General Plan Designations:	Ponderosa Way Tank Site: Suburban (SR) Canyon View Loop Tank Site: Timber (T) Well Site: Upland Agricultural (UA) Transmission Main from Well to Ponderosa Way Tank: SR and UA Water Lines, Water Meters, Water Services, Fire Hydrants: SR, UA, Rural Small Lot (RS) Resources Lands (NR), and T
Zoning:	Ponderosa Way Tank Site: Natural Resource (NR) Canyon View Loop Tank Site: Timber (TPZ) Well Site: Agricultural (AG-1) Transmission Main from Well to Ponderosa Way Tank: NR and AG-1 Water Lines, Water Meters, Water Services, Fire Hydrants: NR, AG-1, Low Density Residential (R1-B:86), Very Low Density Residential (RE-B:10), and TPZ
Surrounding Land Uses:	Land uses adjacent to Canyon View Loop include low-density residences and undeveloped open space. Land uses along Ponderosa Way and the surrounding area include single-family residences. Lands surrounding the well are forested open space.
Topography:	Elevations in the study area range between ±3,100 feet and ±3,830 feet above sea level. The majority of the study area is relatively level; however, the transmission line corridor between the well site and Ponderosa Way is extremely steep with an average slope of 40 percent.
Plant Communities/Wildlife Habitats:	Habitat types in the study area include urban/rural residential, oak/pine woodland, stream/riverine, and mixed chaparral. The urban/rural residential community includes paved and unpaved roadways, and developed residential properties. Some of this habitat has been planted with non-native ornamental species, and numerous non-native grass species have become established in clearings and road shoulders. Representative trees and shrubs in the oak/pine woodland include ponderosa pine, gray pine, Douglas-fir, canyon live oak, and California black oak. The onsite ponderosa pine forest is best developed in the eastern portion of the Ponderosa Sky Ranch subdivision and along Canyon View Loop. Relatively pure stands of ponderosa pine are present in some areas, while black oak is a substantial component of the community in other areas. The stream/riverine habitat in the study area includes an intermittent stream: Paynes Creek. Ephemeral streams and numerous constructed ditches are also present in the study area. The mixed chaparral habitat is present on the steep south-facing slope between Paynes Creek and the Ponderosa Sky Ranch subdivision and in the western portion of the subdivision. Characteristic shrub species include buckbrush, deerbrush, yerba santa, green-leaved manzanita, white-leaf manzanita, Brewer oak, Fremont's silktassel, western redbud, California flannelbush, Sierra plum, birch-leaved mountain mahogany, California buckeye, and other species. *See Section 4.4 (Biological Resources) and Appendix B (Biological Study Report)*
Climate:	The study area is characterized by hot, dry summers and cool, wet winters. The average annual temperature is about 45 degrees Fahrenheit (°F). Monthly mean maximum temperatures range from a high of 81° F in July to a low of 40° F in January. Precipitation is about 53 inches per year.

1.7 TRIBAL CULTURAL RESOURCES CONSULTATION

Public Resources Code (PRC) §21084.2 (AB 52, 2014) establishes that *"a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."* Pursuant to PRC §21080.3.1, in order to determine whether a project may have such an effect, a lead agency is required to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if the tribe requested to be informed through formal notification of proposed projects in the geographical area; and the tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation. According to the District, as of January 1, 2022, no tribes have requested formal notification of proposed projects in the geographical area. As discussed in Section 4.5, on June 22, 2021, ENPLAN contacted the Redding Rancheria, as recommended by the Native American Heritage Commission (NAHC), with a request to provide comments on the proposed project. A follow-up e-mail and telephone call were placed on July 5, 2021, to the Redding Rancheria. No comments or concerns were reported by the tribe.

1.8 PERMITS AND APPROVALS

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

Sky View County Water 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.

Tehama County:

- Approval of an Encroachment Permit for work in the public road right-of-way.
- Approval of a Building Permit for new structures.

California Department of Fish and Wildlife

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

California Department of Forestry and Fire Protection:

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

California Department of Transportation:

- Approval of an Encroachment Permit for work in the State ROW.

State Water Resources Control Board (SWRCB)/Central Valley Regional Water Quality Control Board (CVRWQCB):

- Coverage under the NPDES permit for *Discharges of Storm Water Runoff Associated with Construction Activity* (currently Order No. 2009-009-DWQ, amended by 2010-0014-DWQ & 2012-0006-DWQ). Permit coverage may be obtained by submitting a Notice of Intent to the SWRCB. The permitting process requires the development and implementation of an effective Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) to reduce pollutants and any additional controls necessary to meet water quality standards.
- Section 401 Water Quality Certification and Report of Waste Discharge (or waiver).

- If construction dewatering activities result in the direct discharge of relatively pollutant-free wastewater, coverage under CVRWQCB General Order R5-2016-0076-01 (NPDES NO. CAG995002) Waste Discharge Requirements - Limited Threat Discharges to Surface Water. This Order includes specific requirements for monitoring, reporting, and implementing BMPs for construction dewatering activities.

State Water Resources Control Board, Division of Drinking Water

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

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

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

U.S. Army Corps of Engineers:

- Section 404 Permit under the Federal Clean Water Act (potentially).

1.9 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

1.10 PROPOSED MITIGATION MEASURES

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

AIR QUALITY

MM 4.3.1 The following measures shall be implemented throughout construction:

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

b. Haul vehicles transporting soil into or out of the property shall be covered.

c. All non-paved areas with vehicle/construction equipment 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. Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day to remove excessive accumulations of silt and/or mud resulting from activities on the development site.

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

h. A publicly visible sign with a telephone number and person to contact regarding dust complaints shall be posted near construction activities. The telephone number of the District shall also be visible to ensure compliance with District Rule 4.1 (Nuisance) and 4:24 (Fugitive Dust Emissions).

i. Designated parking areas shall be provided for construction workers in order to reduce dust emissions.

j. All construction equipment shall be maintained in proper tune in accordance with manufacturer's specifications.

k. All portable construction equipment, including generators and air compressors rated over 50 brake horsepower, shall be registered in the California Air Resources Control Board's Portable Equipment Registration Program, or shall be permitted by the District as a stationary source.

l. Electric construction equipment shall be used where feasible.

m. Gasoline-powered equipment shall be used in lieu of diesel-powered equipment, where feasible.

n. Alternatively-fueled construction equipment shall be used, where feasible (e.g., compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel).

MM 4.3.2 Prior to demolition of the Ponderosa Way water tanks, well building, and booster pump station, a comprehensive survey shall be completed in locations where asbestos and lead-based paint are suspected. Removal, handling, and disposal of material containing asbestos or lead-based paint must be conducted in accordance with National Emission Standard for Hazardous Air Pollutants (NESHAP), California Occupational Health and Safety Administration (CalOSHA), and other applicable federal, State, and local regulations.

MM 4.3.3 In the event previously undetected asbestos or lead-containing materials are discovered during construction, activities that may affect the materials shall cease until results of additional surveys are reviewed. Alternatively, the Sky View County Water District can assume that the materials are hazardous. Any identified hazardous materials shall be disposed of in accordance with applicable hazardous waste regulations.

BIOLOGICAL

MM 4.4.1 Construction-related activities within the ordinary high-water mark of streams shall be limited to the period between June 1 and October 31, or as may otherwise be specified through jurisdictional permits/certifications issued by the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and/or Regional Water Quality Control Board. If work is proposed outside of the agency-approved work windows, the Sky View County Water District shall obtain approval from those agencies prior to conducting such work, and shall implement any additional measures that may be required.

MM 4.4.2 Loss of riparian habitat along drainages shall be minimized by implementing the following measures:

a. Minimize the construction disturbance to riparian habitat along drainage systems through careful pre-construction planning.

b. Install high-visibility fencing, flagging, or other markers along the outer edges of the construction zone where needed to prevent accidental entry into riparian habitat.

c. Stockpile equipment and materials outside of riparian habitat, in the designated staging areas.

d. Prune any riparian plants at ground level where feasible (as opposed to mechanically removing the entire plant and root system) in temporary use areas, which will promote regeneration from the root systems.

MM 4.4.3 In order to avoid impacts to nesting birds and raptors protected under the federal Migratory Bird Treaty Act and California Fish and Game Code §3503 and §3503.5, including their nests and eggs, one of the following shall be implemented (removal of raptor nests at any time of year is prohibited unless appropriate permits are obtained):

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

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

   Surveys shall begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey shall 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 electronically to the California Department of Fish and Wildlife at R1CEQARedding@wildlife.ca.gov upon completion. The survey shall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction survey, the site shall be resurveyed.

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

MM 4.4.4 The potential for introduction and spread of noxious weeds shall be avoided/minimized by:

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

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

c. Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the job site and upon leaving the job site.

MM 4.4.5 High-visibility fencing, flagging, or other markers shall be installed along the outer edges of the construction zone adjacent to wetlands and other waters designated for avoidance. The fencing location shall be determined by a qualified biologist in consultation with the project

engineer and the Sky View County Water District. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the fenced area. The exclusionary fencing shall be periodically inspected during construction activities to ensure the fencing is properly maintained. The fencing shall be removed upon completion of work.

MM 4.4.6 To prevent the inadvertent entrapment of wildlife, the construction contractor shall ensure that at the end of each workday trenches and other excavations that are over one-foot deep have been backfilled or covered with plywood or other hard material. If backfilling or covering is not feasible, one or more wildlife escape ramps constructed of earth fill or wooden planks shall be installed in the open trench. Pipes shall be inspected for wildlife prior to capping, moving, or placing backfill over the pipes to ensure that animals have not been trapped. If animals have been trapped, they shall be allowed to leave the area unharmed.

CULTURAL

MM 4.5.1 In the event of any inadvertent discovery of cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly modified lithics, historic artifacts, etc.), all work within 50 feet of the find shall be halted until a professional archaeologist can evaluate the significance of the find in accordance with PRC §21083.2(g) and §21084.1, and CEQA Guidelines §15064.5(a). If any find is determined to be significant by the archaeologist, Sky View County Water District staff 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 Sky View County Water District prior to resuming construction.

MM 4.5.2 In the event that human remains are encountered during construction activities, the Sky View County Water 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 All grading plans, foundation plans, and structural calculations shall be reviewed by a qualified professional to ensure that all recommendations included in the KC Engineering Geotechnical Report are implemented. Applicable notes shall be placed on the attachment sheet to the improvements plans and in applicable project plans and specifications.

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

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

HYDROLOGY AND WATER QUALITY

MM 4.10.1 In order to avoid/minimize potential effects, the following measures shall be implemented for all improvements located in the 100-year floodplain:

a. Final construction/improvement plans for the wellhouse improvements, well casing, stairway over Paynes Creek, transformer pad, and the transmission main mounted on the stairway shall be reviewed and approved by a registered professional engineer or surveyor to ensure that improvements are constructed above the most probable 100-year flood elevation of 3,081.05 feet, as determined by the Paynes Creek Flood Study prepared by Pacific Hydrologic Incorporated on November 12, 2021.

b. All structures shall be adequately anchored to prevent flotation, collapse, or lateral movement of the structure that could occur due to hydrodynamic and hydrostatic loads, including the effects of buoyancy.

c. Documentation shall be provided by a registered professional engineer demonstrating that improvements in the 100-year floodplain do not change the direction and/or velocity of the flow of water in Paynes Creek; improvements do not increase the most probable 100-year base flood elevation (BFE) during the occurrence of the base flood discharge; and improvements do not create an obstruction that could snare or collect debris carried by the flow.

d. Following completion of improvements that are within the floodplain, the elevations of the structures shall be certified by a registered professional engineer or surveyor to ensure that the improvements are above the most probable 100-year BFE.

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 Sky View County Water District General Manager or his/her designee for activities that require interruption of utility services to allow work during low demand periods, or to alleviate traffic congestion and safety hazards.

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

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

TRIBAL CULTURAL RESOURCES

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

SECTION 2.0 CEQA DETERMINATION

On the basis of this initial evaluation:

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

☒ **I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION has been prepared.**

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT Is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Timothy R. Taylor
Sky View County Water District General Manager

2-24-22
Date

SECTION 3.0 PROJECT DESCRIPTION

3.1 PROJECT BACKGROUND, NEED, AND OBJECTIVES

The Sky View County Water District (District) was established in 2007 to provide drinking water to the Ponderosa Sky Ranch subdivision in Tehama County. According to the Preliminary Engineering Report (PER) prepared PACE Engineering, Inc., a service connection moratorium was imposed in 2007 due to insufficient storage and other factors that could potentially lead to insufficient water supplies for current customers. According to the PER, if proposed improvements to the water system are completed, the moratorium is likely to be lifted, and development could occur in accordance with the Tehama County General Plan.

The water system was originally constructed in 1948, and portions of the water system were replaced in the 1970s. The District's service area boundary encompasses ±2,000 acres (3.13 square miles). The estimated population in 2019 was 207. The District has a total of 122 metered service connections, 90 of which are active single-family residences. There are an additional 118 parcels in the service area that are not connected to the system.

The water distribution system consists of one groundwater well; 2,100 feet of 8-inch transmission main; one 18,000-gallon steel storage tank; one booster pump station with four hydropneumatic tanks; and variously sized steel, asbestos cement (AC), high-density polyethylene (HDPE), and polyvinyl chloride (PVC) pipelines. There are seven fire hydrants located throughout the District's service area (three 2 ½-inch post type hydrants and four 1 ½-inch flushing hydrants).

Water produced from the groundwater well meets the State Water Resources Control Board (SWRCB) criteria for domestic water systems and therefore does not require treatment beyond disinfection. The groundwater is currently treated with a sodium hypochlorite solution at the well head and then pumped through the transmission main to the storage tank located near Ponderosa Way. Water from the storage tank is then pressurized by the booster pump station into four 75-gallon bladder hydropneumatics tanks which deliver the water to the Upper Pressure Zone (UPZ) of the water distribution system. The proposed improvements are needed for the following reasons:

Existing Well

The existing well casing is flush with the wellhouse floor, making it susceptible to contamination. There is also concern that due to the proximity of the well to Paynes Creek, the well is susceptible to flood damage. The well house does not meet current electrical codes and is not equipped with a production flow meter. Further, in order to make repairs to the existing submersible pump, the pump must be completely removed, making maintenance a challenge.

Photo 1. Transmission Main Connection to Existing Well

Access to the wellhouse is very limited in the winter. District staff can drive through the creek to the well during the dry season; however, in the winter, the water level in Paynes Creek rises and covers the road, making it unsafe to cross. In order to check on the pump and refill the chlorine day tank, the water system operator must cross Paynes Creek by crawling along the aerial transmission pipeline that is supported by a set of T-posts and a concrete-filled barrel, which is a safety concern (See **Photos 1 and 2**).

Photo 2. Transmission Main over Paynes Creek to the Well.

Transmission Main

Much of the transmission main between the well and the water storage tank is improperly bedded or supported above grade, making it susceptible to damage from ground slippage, forest fires, heavy snow, and other environmental influences (see **Photo 3**).

Water leaks in the main are prevalent, and repairs are frequently required. The ability to complete repairs is challenging because the pipeline traverses a steep canyon with an average slope of 40 percent and access is limited.

Photo 3. Transmission Main with Repair Clamps

Water Storage

The District has a 50,000-gallon stone water tank; however, the County Environmental Health Department required this tank to be taken out of service due to repeated positive coliform test results. The District's 18,000-gallon water tank (**Photo 4**) is over 50 years old and does not provide adequate storage to meet the existing maximum day demand (MDD) or fire flow requirements. The tank is leaking and preventing the District from utilizing the tank's full capacity. Further, the tank was struck by a vehicle in 2021, creating a leak in the drain valve. The District subsequently purchased two 10,000-gallon polyethylene tanks as a temporary solution until a new larger storage tank is constructed. The temporary tanks will be used until a new tank is constructed.

Photo 4. 18,000-Gallon Water Tank; Stone Tank in the Background.

Booster Pump Station
The District has only one booster pump that pressurizes water from the storage tank into four 75-gallon hydropneumatic tanks for distribution of water to the Upper Pressure Zone (UPZ). Because there is only one booster pump, there is no redundancy in the UPZ. Further, the storage capacity in the UPZ is limited by the size of the hydropneumatic tanks and the frequency of pumping. The pump cycles every three to five minutes, indicating that the pump is being overexercised.

Distribution System
An estimated 95 percent of the pipe material in the distribution system is 70 years old and is beyond repair because new leaks continue to develop adjacent to previously repaired sections. In addition, several waterlines run through backyards on private property, making it difficult for the District to locate and repair leaks. Some water meters are also located in backyards and are inaccessible. Water meters are also near the end of their useful service lives. It is suspected that the meters no longer accurately register water flow, which may result in inaccurate readings and lost revenue for the District.

Some of the District's customers are not directly served by any infrastructure, and those customers are required to haul and store their own drinking water. Further, the existing fire hydrant spacing and capacity are not sufficient to meet fire code requirements.

Emergency Back-Up Power
The District does not currently have emergency backup power to provide reliable water service. Due to Public Safety Power Shutoffs (PSPS), the District lost power 33 times between January 2018 and February 2021, with an average duration of 22 hours per event. Major storm events can also result in power outages that can last several days.

The purpose of the proposed project is to replace aging infrastructure, increase water storage, improve fire flows, reduce operational and maintenance costs, improve access for maintenance, and ensure a safe and reliable potable water supply for customers in the District's water service area. A detailed description of the improvements is provided in Section 3.2 (Project Components/Physical Improvements).

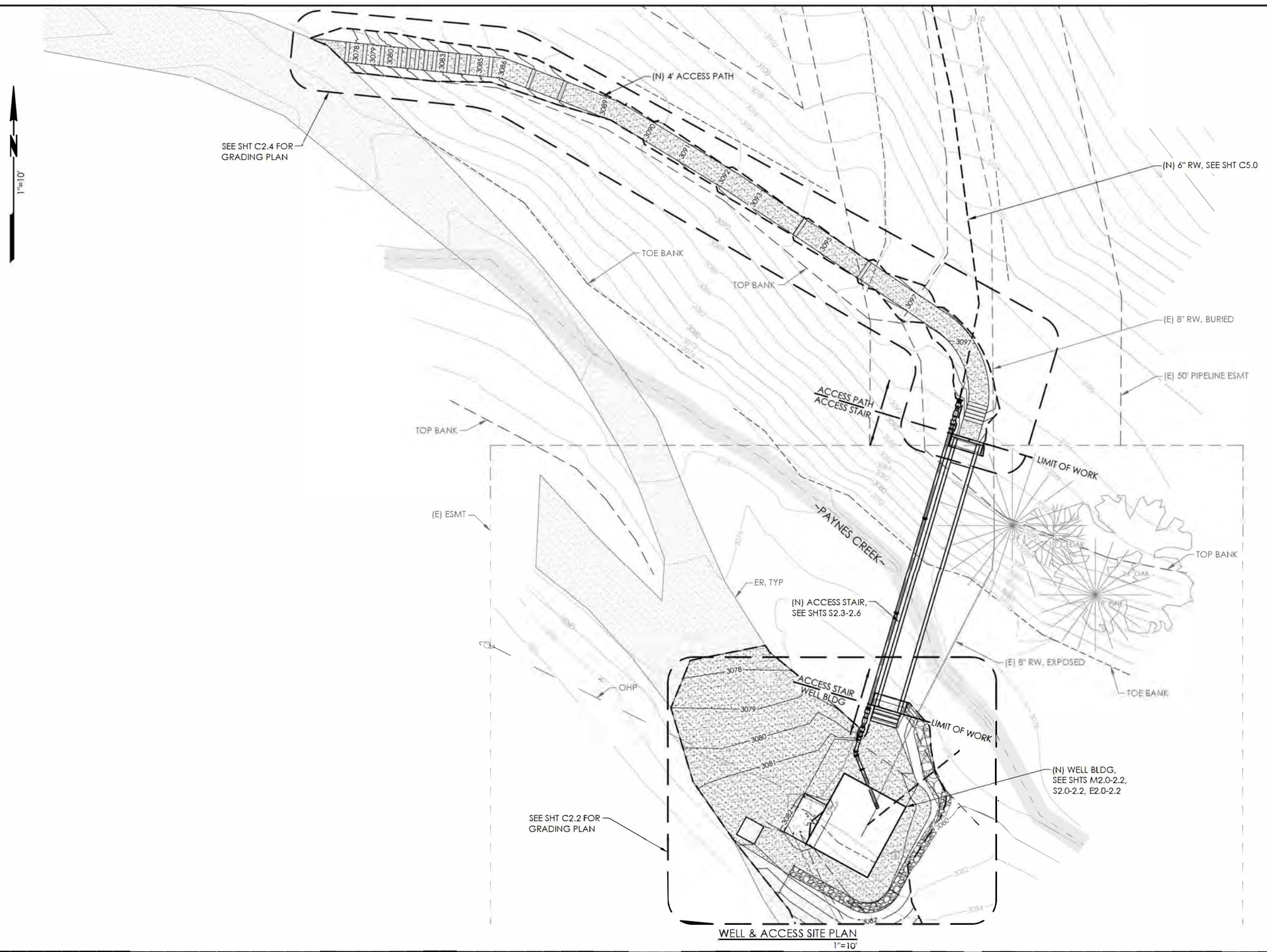
Work is anticipated to commence in the spring of 2023 and would be completed in approximately 24 months. For purposes of this Initial Study, "study area" and "project site" shall mean the project footprint, which includes access roads, staging areas, and areas in which improvements are proposed.

3.2 PROJECT COMPONENTS / PHYSICAL IMPROVEMENTS

This section describes the proposed improvements that are the subject of this Initial Study. The identified improvements are based on 90 percent plans, and minor modifications to the project may be made during completion of the final improvement plans; the study area for the project was expansive to allow for flexibility with the engineering design. The project would be completed in accordance with the geotechnical criteria included in the Geotechnical Exploration Report prepared for the project by KC Engineering in June 2021 (see **Exhibit A)**, including criteria for demolition and grading of the sites, the design of foundations for the proposed tanks and access stairway, drainage improvements, and other site-specific improvements.

Well Site Improvements

Proposed well site improvements are shown in **Figure 3.2-1.** The existing well building and building slab would be demolished. Following demolition and removal of the building and slab, the well site would be graded using conventional construction equipment. A preliminary grading plan is included as **Figure 3.2-2.** Construction equipment would be delivered to the construction site via the existing access road to the well. It is estimated that one to two mature trees would need to be removed to accommodate the proposed improvements at the well site.



90% PLANS

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

REVISIONS		
NO	DATE	DESCRIPTION

PACE® ENGINEERING

DES	WM	CKD	RB	JOB NO.
DRN	DP	DATE	12/17/21	2861.01

SIGNED
PRELIMINARY NOT FOR CONSTRUCTION

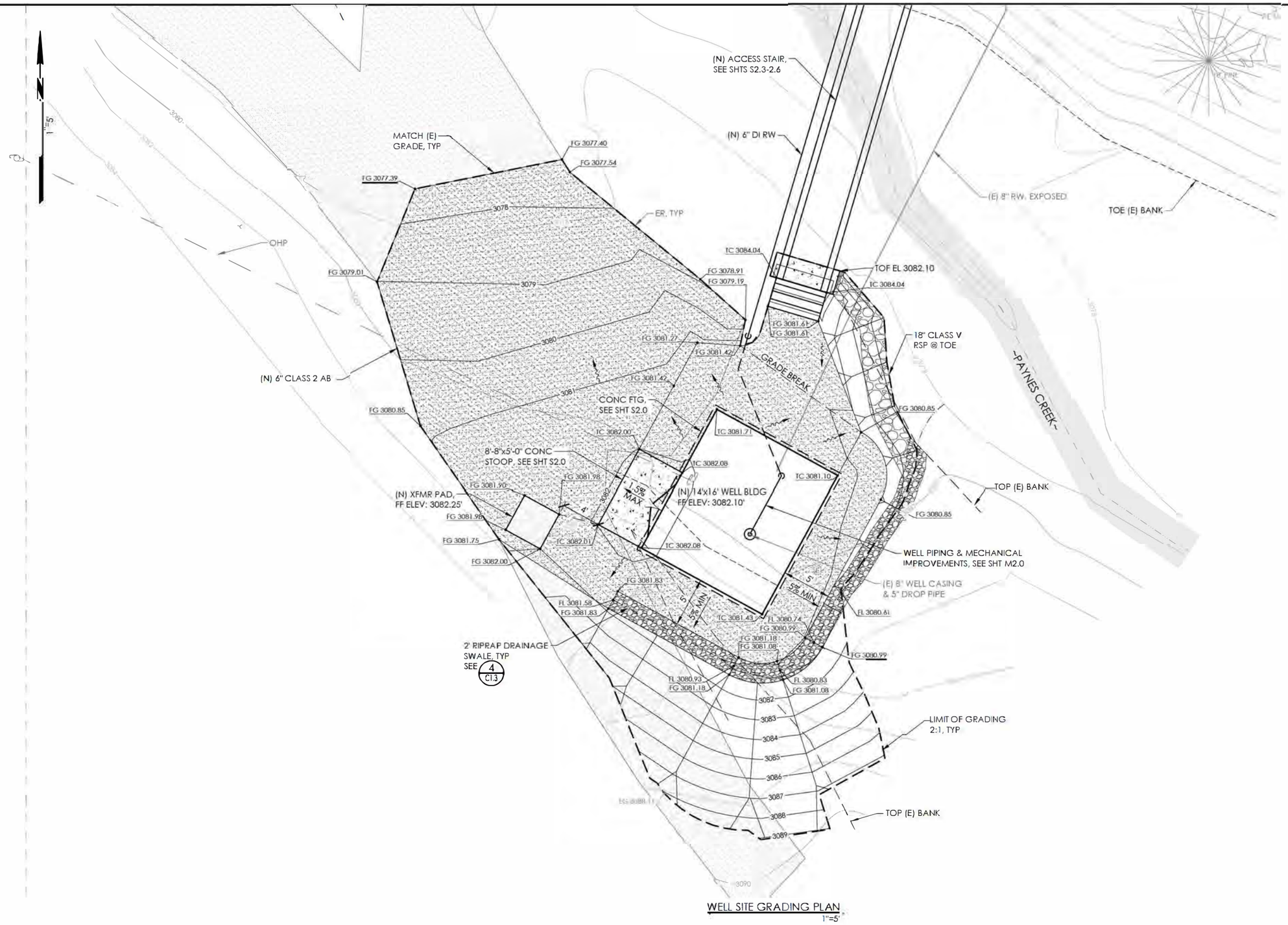
SKY VIEW COUNTY WATER DISTRICT
WATER SYSTEM IMPROVEMENT PROJECT

WELL & ACCESS STAIR SITE PLAN

SHEET
C2.1
PG 15 OF 127

Plot Date: December 17, 2021 - 4:40 pm Login Name: emiller
File Name: M:\Land Projects\2861.01 Sky View Water System Improvement Project\DWG\CIVIL - WELL SITE IMPROVEMENT.dwg Layout: SITE OVERVIEW

Figure 3.2-1: Proposed Well Site Improvements



WELL SITE GRADING PLAN
1"=5'

HATCH LEGEND

- (N) CONCRETE
- (E) AB ROAD
- (N) CLS 2 AB
- (N) CLASS III RSP

APPROXIMATE GROSS EARTHWORK QUANTITIES (NEAT LINE)

50 CY - CUT
75 CY - FILL

THESE QUANTITIES ARE BASED ON NEAT LINE CALCULATIONS AND DO NOT INCLUDED SHRINKAGE, SWELLING, OR TRENCHING AND FOOTING SPOILS. THE ESTIMATED QUANTITIES ARE FOR BUDGETARY PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINATION OF EARTHWORK QUANTITIES.

90% PLANS

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

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SKY VIEW COUNTY WATER DISTRICT
WATER SYSTEM IMPROVEMENT PROJECT

WELL SITE GRADING PLAN

SHEET
C2.2
PG 16 OF 127

Date: 12/17/2021 4:40:15pm Login: wmiller
File Name: V:\Land Projects\2861\01 Sky View Water System Improvement Project\DWG\CIVIL - WELL SITE IMPROVEMENT.dwg Layout: WELL SITE GRADING

Figure 3.2-2: Well Site - Preliminary Grading Plan

The new well house would be a ±224 square-foot stick-built structure with fiber cement siding, constructed in the same general location as the existing wellhouse. The new foundation would be ±1.75 feet higher than the existing foundation. The well casing would be raised by ±3.4 feet to minimize the potential for damage due to flooding from Paynes Creek. To facilitate drainage, a new riprap-lined drainage swale would be installed immediately south of the new well building.

The existing submersible well pump would be replaced with a new 75 HP vertical turbine pump equipped with a variable frequency drive (VFD). A flow meter would be installed to record water production from the well, which will allow the District to determine the extent of water loss in the system.

An access stairway would be constructed across Paynes Creek to allow District staff to safely access the well for year-round maintenance (see **Figure 3.2-3**). The stairway would be about five feet wide and 60 feet long. A foot path from the end of the existing access road to the stairway would be constructed (see **Figure 3.2-4**). The path would be about four feet wide and about 160 feet in length. The path would be covered with aggregate base.

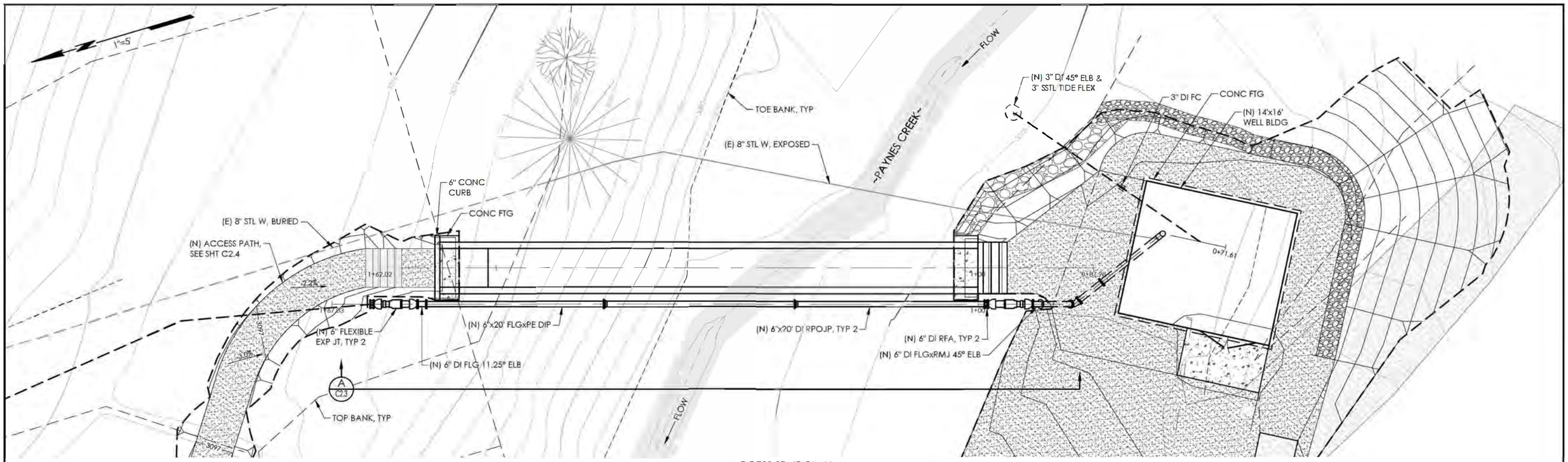
In order to operate the well during a power outage, a new transformer would be installed at the well site, and electrical conduit would be installed underground to the new generator on the Ponderosa Way water tank site. The electrical service is also required to convey tank level data via radio telemetry to the well. The alignment for the electrical conduit would be the same as for the transmission main.

Water Transmission Main

Approximately 2,130 linear feet of 8-inch transmission main would be replaced with 6-inch pipeline from the well to the new water tank located adjacent to Ponderosa Way. At Paynes Creek, the transmission main would be mounted on the new access stairway. The remainder of the transmission main would be installed subsurface via open-cut trenching.

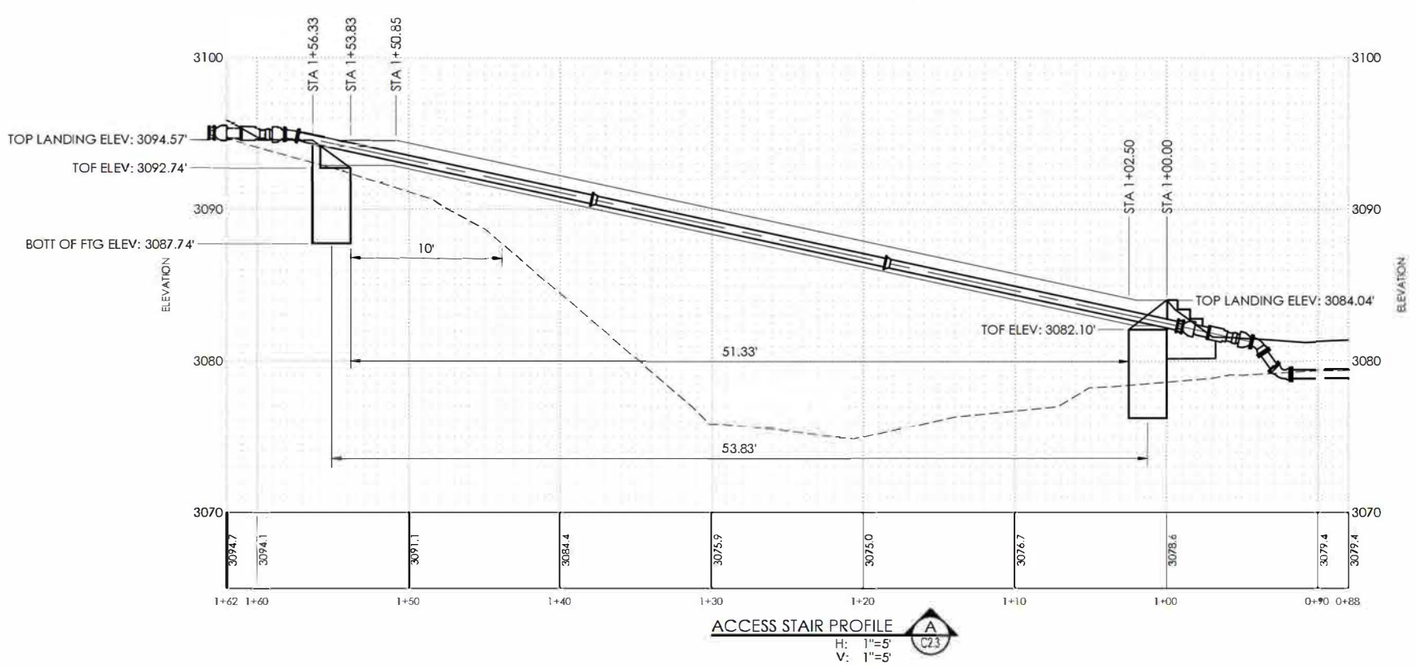
Water Distribution System

- To extend water service to Canyon View Loop on the north side of Highway 36, an 8-inch waterline would be extended in the Ponderosa Way ROW from the booster pump station to Highway 36. The pipe would be extended through an existing Caltrans culvert under Highway 36 and then in the road ROW of Canyon View Loop to the new water tank site.
- To serve residences south of Highway 36, ±16,200 linear feet of waterline would be replaced/installed in the public road ROW of Navion Road, Ponderosa Way, Vanguard Avenue, Snark Lane, Jupiter Avenue, Cessna Avenue, Summit Road, Ruth Lane, Piney Lane, and Explorer Road; and in public utility easements on private property and District property.
- Water lines would be installed using open-cut trenching. In paved areas, the existing pavement would be saw-cut and removed. Following installation of the pipe, the trench would be backfilled with a compacted granular material to prevent settlement, and the disturbed area would be re-paved. In unpaved areas, the excavation would be backfilled with select native soils, and the ground surface would be revegetated as necessary.
- All existing water meters, meter boxes, and service laterals/connections would be replaced, and new facilities would be installed to serve existing unserved developed parcels. Customer pressure reducing valves (PRVs) would be installed as needed.
- Existing waterlines, service laterals, and water meters that are currently located in the back yards of residences would be relocated to the street side of the residences to improve access for ongoing maintenance.



ACCESS STAIR PLAN
1"=5'

RPOJP = RESTRAINED PUSH-ON JOINT PIPE



ACCESS STAIR PROFILE
H: 1"=5'
V: 1"=5'
A
C2.3

90% PLANS

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

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DRN WM	DATE 12/17/21	2861.01

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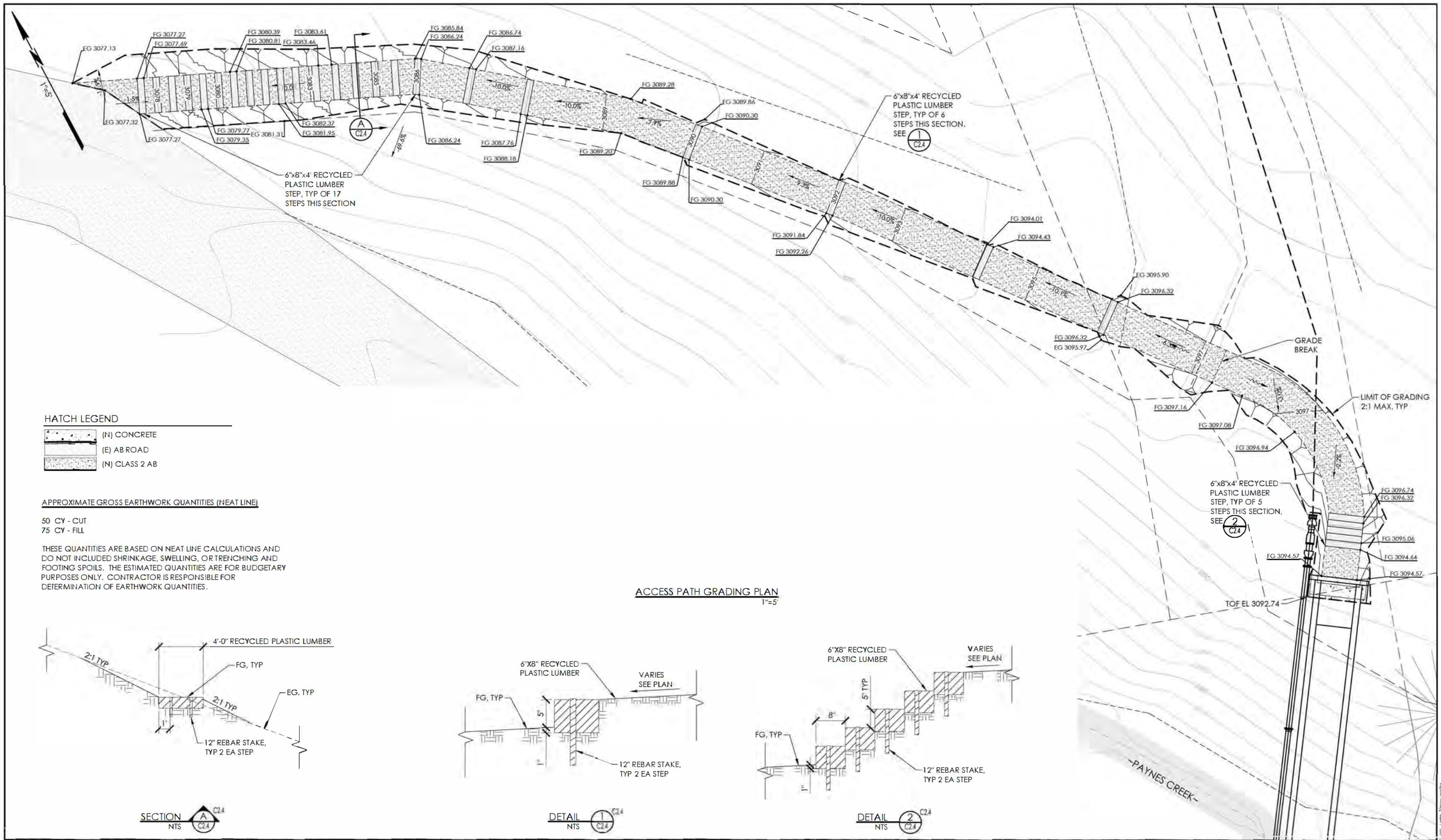
SKY VIEW COUNTY WATER DISTRICT
WATER SYSTEM IMPROVEMENT PROJECT

WELL SITE ACCESS STAIR

SHEET
C2.3
PG 17 OF 127

Date: December 20, 2021 - 3:42 pm Login Name: wmiller
File Name: I:\Land Projects\2861.01 Sky View Water System Improvement Project\DWG\CIVIL - WELL SITE IMPROVEMENTS\dwg Layout: BRIDGE PROFILE

Figure 3.2-3: Well Site - Paynes Creek Crossing



HATCH LEGEND

(N) CONCRETE

(E) AB ROAD

(N) CLASS 2 AB

APPROXIMATE GROSS EARTHWORK QUANTITIES (NEAT LINE)

50 CY - CUT
75 CY - FILL

THESE QUANTITIES ARE BASED ON NEAT LINE CALCULATIONS AND DO NOT INCLUDED SHRINKAGE, SWELLING, OR TRENCHING AND FOOTING SPOILS. THE ESTIMATED QUANTITIES ARE FOR BUDGETARY PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINATION OF EARTHWORK QUANTITIES.

ACCESS PATH GRADING PLAN
1"=5'

SECTION A C2.4 / C2.4
NTS

DETAIL 1 C2.4 / C2.4
NTS

DETAIL 2 C2.4 / C2.4
NTS

90% PLANS

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

REVISIONS		
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DES DP | CKD SP | JOB NO. 2061.01
DRN DP | DATE 12/17/21

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SKY VIEW COUNTY WATER DISTRICT
WATER SYSTEM IMPROVEMENT PROJECT

ACCESS PATH GRADING PLAN

SHEET
C2.4
PG 18 OF 127

Plot Date: December 17, 2021 - 4:41 pm Login Name: kestler
File Name: M:\Land Projects\2061.01 Sky View Water System Improvement Project\DWG\CIVIL - WELL SITE IMPROVEMENT.dwg Layout: ACCESS GRADING

Figure 3.2-4: Well Site Access Path - Preliminary Grading Plan

- Service connections would be installed from the waterline to the property line of undeveloped parcels within the District's water service area to facilitate ease of connecting future customers; water meter boxes with lids would also be installed at the property line of these undeveloped parcels.
- New fire hydrants would be installed every 500 to 1,000 feet throughout the District's service area, and ±5 blowoffs would be installed. The hydrants and blowoffs would be utilized for fire protection and flushing of the system.
- System PRV stations would be installed in the mainline to reduce pressure, allowing the entire distribution system to be served by the Canyon View Loop water tank.

Ponderosa Way Tank Site Improvements

Proposed improvements on the Ponderosa Way tank site are shown in **Figure 3.2-5 and 3.2-6.**

- The property would be cleared and graded to accommodate the proposed improvements. It is estimated that four mature trees would need to be removed.
- A new ±110,000-gallon bolted steel water tank would be installed immediately south of the existing tanks. The new tank would be ±30 feet in diameter and ±24 feet tall.
- Temporary piping would be installed to connect the new tank to the existing booster pump station until the new station is completed. When the new tank is operational, the old tanks would be demolished and removed to make way for the new booster pump station.
- The new tank would include an electronic level transmitter that would convey real-time tank level data via radio telemetry to the well. The tank level signal would be used to control the well pump.
- Overflow discharge piping would be installed on the southwest side of the tank and would discharge to a constructed cobble-lined ditch with an energy dissipator. Storm water runoff from the site would also be routed to the constructed ditch.
- An existing overhead communications line would be rerouted around the tank to Ponderosa Way.
- A new chlorine injection vault would be installed adjacent to the tank. Associated inlet and outlet piping would be installed
- A new ±15-foot by ±31-foot (±465 square-foot) concrete masonry pump station would be constructed immediately southeast of the existing pump station. Approximately 900 square feet of asphalt pavement would be installed along the property frontage adjacent to the new pump station and on both sides of the new pump station.

  Two VFD vertical turbine pumps would be installed in the pump station. The station would include a separate room to house the chemical day tank and dosing pump, and an emergency eyewash station. Miscellaneous heating and ventilation, mechanical, and electrical equipment would also be installed in the building. When operational, the new water tank would be connected to the new booster pump station, and the old station would be demolished and removed from the property.
- A new diesel emergency back-up generator would be installed on a cement slab between the new booster pump station and the new water tank. The generator would be sized to operate the well, booster pump station, and Ponderosa Way water tank.

PONDEROSA WAY

(E) 2" PVC W

DEMO (E) PUMP STATION, SEE NOTE 1

DEMO (E) VALVE VAULT, SEE NOTE 2

DEMO (E) STEEL TANK

P/L

1"=10'

OHP

(E) 8" STL W

(E) 3" GSP

(E) 3" GV

(E) 2" GSP

(E) 2" THRD BV

(E) 8"x6" FLG RED

(E) 6" STL W

(E) BLDG

(E) 6" PVC

(E) 8" BFV

(E) 8" PVC 90° ELB W/ 8"x6" BUSH

(E) 18,000-GAL STL TANK

(E) 6" PVC RW

(E) 6" 22.5° PVC ELB

(E) 6" PVC TEE, AIR/VENT FROM BRANCH FACING UP

(E) 6" SLP FLG CV

(E) 6" PVC TEE

(E) 6" SLP FLG BFV W/ HAND OPERATOR, TYP OF 2

(E) ANTENNA

DEMO (E) STONE TANK

DEMO (E) VALVE VAULT, SEE NOTE 2

SEE NOTE 2

(E) 10,000 GAL TANK

(E) 10,000 GAL TANK

(E) 8" STL RW

FINAL DESIGN NOTE:
(E) RW TRANSITIONS FROM 6" PVC TO 8" STL, LOCATION UNKOWN

(E) 1½" STL W

(E) 3" HDPE W

O/H COMM LINE, TO BE REROUTED ALONG PONDEROSA WAY

(E) UTIL POLE TO BE REMOVED/RELOCATED

TREE TO BE REMOVED, TYP 4

(E) ESMT

20" PINE
10" PINE
8" PINE
12" PINE
20" PINE
12" PINE
10" PINE
6" PINE
12" PINE
14" PINE
12" PINE
12" PINE
6" PINE
10" PINE
10" PINE
10" PINE
10" PINE
12" PINE
12" PINE
16" PINE
10" OAK
16" PINE
12" PINE
16" PINE

NOTES:
1. (E) PUMP STATION TO REMAIN IN SERVICE UNTIL (N) PUMP STATION IS CONSTRUCTED & IN SERVICE.
2. (E) TANKS & PIPING TO REMAIN IN SERVICE UNTIL (N) PONDEROSA TANK IS CONSTRUCTED & IN SERVICE.

EXISTING TANK DEMO PLAN
1"=10'

90% PLANS

BAR IS ONE INCH ON ORIGINAL DRAWING
0" 1"
IF NOT ON INCH ON THIS SHEET, AD JST SCALES ACCORDINGL Y.

REVISIONS		
NO.	DATE	DESCRIPTION

PACE® ENGINEERING

DES	WM	CKD	RB
DRN	WM	DATE	12/17/21

JOB NO 2861.01

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PRELIMINARY NOT FOR CONSTRUCTION

SKY VIEW COUNTY WATER DISTRICT
WATER SYSTEM IMPROVEMENT PROJECT

PONDEROSA TANK SITE & DEMOLITION PLAN

SHEET
C3.0
PG 19 OF 127

Plot Date: December 17, 2021 4:41 pm Login Name: wmiller
File Name: M:\Land Projects\2861.01 Sky View Water System Improvement Project\DWG\CIVIL - DEMOLITION PLAN\dwg Layout: DEMOLITION PLAN

Figure 3.2-5: Ponderosa Way Tank Site - Demolition Plan

SEE SHEET C6.4 FOR CONTINUATION

SEE SHEET C6.3 FOR CONTINUATION

PONDEROSA WAY

(N) 8" W

8"x1½" SERVICE SADDLE

8" DI RMJ LONG RAD ELB

1½" WS

(E) PP, TYP

NATIVE ROCK, TYP

8" DI MJ 22.5° ELB

P/L

EP, TYP

SWITCHBOARD, SEE SHT E4.1

PUMP STATION BLDG, SEE SHT M4.0

±14'

OHP

(N) 8" W

BOLLARD, TYP 4, SEE NOTE 1

PUMP ROOM FF ELEV: 3464.0'

CHEM ROOM

STORAGE ROOM

±350 LF OF 6' CHAIN LINK FENCE

14' DBL GATE, TYP 2

3" D TO DAYLIGHT

20" PINE

10" PINE

8" PINE

12" PINE

6" PINE

14" PINE

(E) BLDG, TYP

CONC PAD, SEE 6/S4.3

8" PVC W

GENERATOR, SEE ELECTRICAL

YARD HYDRANT, SEE 3/C1.1

2" C W/ (2) ⅜" POLY

8" OUTLET PIPING, SEE SHT M3.0

YARD LIGHT, TYP 2

BOLLARD, TYP 12

INSTALL 6"/8" BF & ABAN (E) 6"/8" RW AFTER (N) TANK IN SERVICE

PINE

(N) XFMR

(N) CHEM INJECTION VAULT, SEE 7/M1.0

(N) 110,000 GAL BOLTED STL TANK 30' DIA x 24' TALL FF ELEV: 3464.0' MWS: 3485.0'

(E) 6"/8" RW TO REMAIN

CONNECT TO 6" FLG GV W/ (N) 6" FMJA AFTER (N) 6" RW CONSTRUCTED & IN SERVICE

14' CLR

TANK PIPING

RW MAIN

LIMITS OF WORK

12" PINE

16" PINE

(N) 6" DI W

TANK WALL

TANK FTG

6" INLET PIPING, SEE SHT M3.0

6" OVERFLOW & DRAIN PIPING, SEE SHT M3.0

A/C4.1

SEE SHEET C5.1 FOR CONTINUATION

NOTES:
1. BOLLARDS SHALL BE REMOVABLE PER DETAIL 3 ON SHT C1.3 & SHALL BE FIELD LOCATED TO ENSURE THERE IS NO INTERFERENCE WITH SWITCHBOARD PANELS.

6" DRAIN

(N) OVERFLOW STRUCTURE & RIPRAP DISSIPATOR, SEE GRADING PLAN SHT C3.1

10'

PONDEROSA TANK SITE IMPROVEMENT PLAN

1"=10'

1"=10'

90% PLANS

BAR IS ONE INCH ON ORIGINAL DRAWING

0" 1"

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

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DRN WM DATE 12/17/21 2861.01

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SKY VIEW COUNTY WATER DISTRICT
WATER SYSTEM IMPROVEMENT PROJECT

PONDEROSA TANK SITE IMPROVEMENT PLAN

SHEET C3.3

PG 22 OF 127

Plot Date: December 17, 2021 - 4:41 pm Login Name: emiller
File Name: M:\Land Projects\29010 Sky View Water System Improvement Project\DWG\CIVIL - IMPROVEMENT PLANS\dwg Layout: IMPROVEMENT PLAN

Figure 3.2-6: Ponderosa Way Tank Site - Proposed Improvements

- A new ±10-foot-wide aggregate base access road would be installed from Ponderosa Way to the new tank; the road would widen to ±12 feet and extend around the perimeter of the tank.
- Chain link fencing would be installed around the perimeter of the water tank site improvements.

Canyon View Loop Tank Site

Proposed improvements on the Canyon View Loop tank site are shown in **Figures 3.2-7 and 3.2-8.**

- The property would be cleared and graded to accommodate the proposed improvements. It is estimated that 35 mature trees would be removed to accommodate the proposed improvements.
- A 150,000-gallon bolted steel water tank would be constructed at the eastern end of Canyon View Loop northwest of its intersection with Highway 36. The tank would be ±40 feet in diameter and ±19 feet tall.
- An existing dirt access road from Canyon View Loop to the tank site would be improved with aggregate base.
- A waterline would be installed in the access road and would extend from the tank to the new waterline in Canyon View Loop.
- Inlet and outlet piping and appurtenant facilities would be installed. Overflow discharge piping would be installed on the north side of the tank and would discharge to an existing constructed ditch on Canyon View Loop.
- The new tank would include an electronic level transmitter that would convey real-time tank level data via radio telemetry to the Ponderosa Way tank site.
- A south-facing solar panel would be installed on top of the water tank to operate the level transmitter/radio telemetry system. The panel would be ±2 feet by ±3 feet and would extend ±5 feet above the top of the tank. A control panel for the solar system would be installed.
- Chain link fencing would be installed around the perimeter of the tank site improvements.

1"=20'

GET PICS NEXT SITE VISIT

(E) 15" CMP

TOP BANK

(E) SIGN

TREE TO BE REMOVED, TYP 35

LIMIT OF PROPOSED EASEMENT

EP, TYP

FL TYP

CALTRANS ROW

FNC

CANYON VIEW LOOP

10" PINE
10" PINE
8" PINE
8" PINE
12" PINE

TANK WALL

TANK FTG

6" FIR

14" PINE

24" PINE
20" CEDAR
24" CEDAR
18" PINE

8" PINE

6" PINE
6" PINE
8" PINE
12" PINE

24" PINE
15" PINE
15" CEDAR
18" PINE
18" OAK
20" PINE

12" PINE

10" PINE
12" PINE
10" PINE
24" PINE
14" PINE

18" PINE
24" CEDAR

(N) 0.15 MG TANK
FF ELEV: 3818.5'

TREE, TYP

(E) ER

(E) PP, GUY, & ANCHOR, TYP

~AB ACCESS RD~

6" PINE

6" PINE
12" PINE

O/H COMM LINE

HWY 36

8" PINE

OHP

FNC

CALTRANS R/O W

TBD
1) ESMT's NOT IN TITLE REPORT - PG&E, FRONTIER

FRONTIER COMM ESMT - TO BE VERIFIED

PG&E ESMT - TO BE VERIFIED

CANYON VIEW TANK SITE PLAN
1"=20'

90% PLANS

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

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PACE ENGINEERING

DES WM	CKD RB	JOB NO.
DRN WM	DATE 12/17/21	2861.01

SIGNED

PRELIMINARY NOT FOR CONSTRUCTION

SKY VIEW COUNTY WATER DISTRICT
WATER SYSTEM IMPROVEMENT PROJECT

CANYON VIEW TANK SITE PLAN

SHEET
C4.0
PG 23 OF 127

Plot Date: December 17, 2021 - 4:42 pm Login Name: wmiller
File Name: M:\Land Projects\2861.01 Sky View Water System Improvement Project\DWG\Civil - CANYON VIEW TANK SITE.dwg Layout: CANYON VIEW TANK SITE

Figure 3.2-7: Canyon View Loop Tank Site - Proposed Improvements

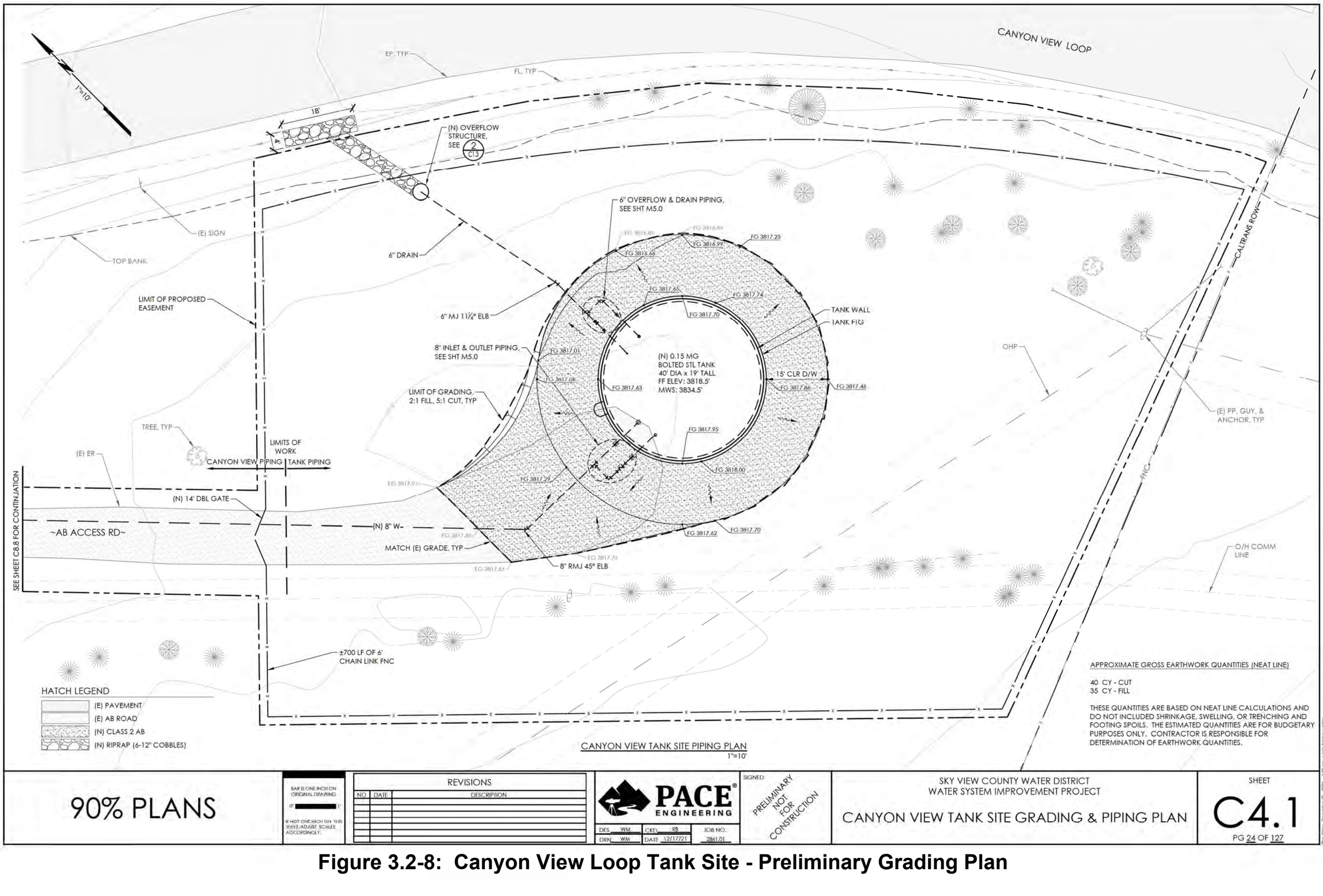

Figure 3.2-8: Canyon View Loop Tank Site - Preliminary Grading Plan

SECTION 4.0 ENVIRONMENTAL IMPACT ANALYSIS

4.1 AESTHETICS

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

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

REGULATORY CONTEXT

There are no federal or local regulations pertaining to aesthetic 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

Tehama County

The County's General Plan includes the following Goal, Policies, and Implementation Measures (IMs) that apply to the proposed project:

Open Space and Conservation Element		
Goal	OS-11	To protect the scenic views and aesthetic qualities of Tehama County.
Policies	OS-11.2	The County shall strive to protect the aesthetic and scenic beauty of its regional locations.
	OS-11.3	The County shall consider the visual impacts of development within areas of significant topography, and shall work to minimize the visual impacts resulting from development of ridgelines.

	OS-11.4	New development should be designed to be compatible with surrounding development in ways that contribute to the desired character of the surrounding area.
IMs	OS-11.2a	Develop viewshed preservation standards. Require that new development be designed to integrate building design, natural landforms, and vegetation in order to minimize alteration of scenic vistas.
	OS-11.2b	To the extent feasible, new development will be required to retain existing trees and vegetation and ensure that these resources are incorporated into project design wherever feasible.
	OS-11.4b	All new structures shall be designed to minimize glare potential including the use of low-emissive glazing, the pre-finishing of metallic surfaces to avoid hot-spots, and non-reflective window treatments and exterior surfaces. The use of mirrored coatings, industrial brushed or polished features, aluminum, or other non-weathering materials shall be strictly prohibited. Reflectivity may be reduced or mitigated through the use of deep overhangs or other methods to provide shading or shadowing.

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. Scenic resources in the study area include creeks and streams, open space, and trees and other vegetation. Some of the proposed improvements would be visible to individuals living and working in the area and to travelers on adjacent roadways.

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.

The well building, access path, and stairway would be located at the bottom of a steep canyon and would not be visible from public viewpoints. The water transmission main, and water distribution lines, and laterals would be subsurface, and the water meters/PRVs would be flush with the ground. Paved roads that are disturbed during installation of the pipeline would be re-paved following construction. In unpaved areas, the surface would be restored to its pre-existing condition upon completion of construction.

As discussed below, project components that have a potential to affect the existing visual character of the area include the Ponderosa Way water tank and booster pump station, and the Canyon View Loop water tank improvements.

Ponderosa Way Tank Site Improvements

As shown in **Photos 4.1-1 and 4.1-2**, two water tanks and a booster pump station are currently present on the site.

The new booster pump station would be a concrete masonry building with a metal pitched roof and would be constructed in the same general location as the existing metal tank. The new building would be ±13 feet in height at the top of the pitched roof, and ±31 feet in length along the property frontage. This is similar to the existing metal tank, which is ±12 feet in height and ±22.5 feet in length.

The new 110,000-gallon tank would be installed immediately south of the existing tanks and would require the removal of approximately four mature trees. The tank would be ±30 feet in diameter and ±24 feet tall, and would replace the two existing tanks on site. For comparison, the stone tank is ±30 feet in diameter and ±16 feet to the top of the metal roof.

Considering that the proposed improvements would replace existing structures of similar size and height, the new tank would be constructed farther back from the road, and a minimal number of trees would be removed, improvements at the Ponderosa Way tank site would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Likewise, installation of security fencing around the perimeter of the improvements would not be considered a significant visual impact.

Photo 4.1-1. Existing 18,000-gallon tank to be demolished

Photo 4.1-2. Abandoned 50,000-gallon stone tank and booster pump station to be demolished

Canyon View Loop Tank Site Improvements

A 150,000-gallon water tank is proposed near the upper (eastern) intersection of Canyon View Loop and Highway 36. The tank would be ±40 feet in diameter and ±19 feet tall, and would be set back about 200 feet from the intersection. Construction of the water tank would require the removal of ±35 trees. Additional improvements at the site include installation of chain-link fencing around the water tank, and installation of a solar panel on top of the proposed tank.

Proposed improvements may be visible to travelers on Highway 36 and Canyon View Loop; however, remaining trees adjacent to the Canyon View Loop tank site would provide screening of the tank site from these viewpoints. The tank also would be painted to blend into the natural landscape. Additionally, the speed limit on Highway 36 in the project area is 65 miles per hour, and drivers would glimpse only a few seconds of the water tank site from Highway 36. Therefore, the Canyon View Loop tank site improvements would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.

Therefore, impacts would be less than significant because the project does not include any components that could impede the view of a scenic vista; natural areas disturbed during construction would be restored to pre-construction conditions; affected roads would be repaved; and impacts during construction would be temporary and cease at completion of the project.

Question B

There are currently no officially designated or eligible State Scenic Highways in Tehama County. Therefore, the project would have no impact on scenic resources within a State Scenic Highway.

Question D

The proposed project includes the installation of exterior lighting at the well site, Ponderosa Way tank site and the Canyon View Loop tank site; however, there are no residences located adjacent to the well site or Canyon View Loop site, and lighting on the Ponderosa Way site would be similar to existing conditions. Temporary lighting is not expected to be used during project construction and, if used, would be required to comply with County standards to prevent impacts on motor vehicles and nearby residences.

As described in Section 3.2 (Project Components/Physical Improvements), the project includes installation of 2-foot by 3-foot south-facing solar panel that would project five feet above the top of the Canyon View Loop water tank. Solar panels are designed to absorb light rather than reflect it, which minimizes glare. In addition, due to the small size of the panel, impacts associated with glare are not expected. Therefore, impacts associated with light and glare would be less than significant and the proposed project would not adversely affect day or nighttime views in the area.

CUMULATIVE IMPACTS

Potential cumulative projects in the area include growth according to the build-out projections in the County's General Plan. As documented above, the proposed project does not include any features that would result in a significant permanent change to the visual character of the community, nor are any substantial development projects anticipated in the community that would contribute to cumulative impacts. Exterior lighting would be installed at the well site, Ponderosa Way site, and the Canyon View Loop site; however, there are no residences adjacent to the well site or Canyon View Loop site, and exterior lighting at the Ponderosa Way site would be similar to existing conditions. Additionally, if construction lighting is required, it 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. 2021. California Road System – Functional Classification (Map Viewer). Accessed October 2021.

Tehama County. 2009. Tehama County General Plan. https://tehamartpa.org/wp-content/uploads/2020/06/2009-2029-Tehama-County-General-Plan-r1.pdf. Accessed September 2021.

4.2 AGRICULTURE AND FOREST RESOURCES

Would the project:

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

REGULATORY CONTEXT

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

STATE

California Farmland Mapping and Monitoring Program (FMMP)

The FMMP was established in 1982 to provide data to decision makers to assist them in making informed decisions for the best utilization of California's farmland. Under the FMMP, the Department of Conservation (DOC) is responsible for mapping, monitoring, and reporting on the conversion of the State's farmland to and from agricultural use. Important Farmland Maps are updated and released every two years. The following mapping categories, which are determined based on soil qualities and 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.

Williamson Act

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

Forest Land and Timberland

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

public benefits." PRC §4526 defines timberland as *"land, other than land owned by the federal government, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees."* Government Code §51104(g) defines Timberland Production Zone as *"an area which has been zoned pursuant to [Government Code] §51112 or §51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h)."*

LOCAL

Tehama County

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

Agriculture and Timber		
Goals	AG-1	To preserve and protect agricultural lands.
	AG-2	To preserve and protect timberlands.
Policies	AG-1.1	The County shall provide for the protection of agricultural lands from nonagricultural development pressures and uses that will adversely impact or hinder existing or foreseeable agricultural operations through a separation utilizing natural buffers and land use transition areas that mitigate or prevent land use conflicts with the development interest providing the buffers.
	AG-2.1	The County shall provide for the conservation of commercial timberland resources and related habitat.
	AG-2.2	The County shall protect timberlands from adjacent development that has the potential to adversely impact timber growing and harvesting operations.

DISCUSSION OF IMPACTS

Questions A, B, and D

According to the *Important Farmland in California* map published by the FMMP, areas in which improvements would occur are not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. According to the County's Zoning Map, the access path and stairway, well house, and transmission main are located on lands zoned Agricultural (AG-1). Although properties in the area may be suitable for use as grazing land, there are no known commercial-scale agricultural uses in the area. The project does not have any components that would interfere with or preclude future agricultural uses in the area or result in other changes in the existing environment that could result in the conversion of farmland to non-agricultural use. In addition, no properties in the project area are subject to a Williamson Act contract. Therefore, the proposed project would have no impact on agricultural uses or zoning for such uses.

Question C

As discussed under Section 1.6 above, the Canyon View Loop tank site and a portion of the distribution system improvements would be located in areas zoned for timberland production (TPZ). Improvements would also occur in areas that meet the definition of forest land pursuant to PRC §12220(g).

Distribution system improvements would be completed within road ROWs and public utility easements, and no conversion of timberland or forest land would occur. The Ponderosa Way water tank site is in an area that meets the definition of forest land; however, only two trees would be removed at this site and the majority of trees in this area would be retained. Therefore, impacts to forest resources on the Ponderosa Way water tank site would be less than significant.

Construction of the Canyon View Loop water tank would result in the removal of approximately 35 trees ranging in size from 10-inch diameter at breast height (DBH) to 24-inch DBH, which would result in the conversion of ±0.5 to ±0.75 acres of timberland and forest land to non-timber and non-forest use. As such, development of the Canyon View Loop water tank improvements is subject to the California Forest Practices Rules (CAL FIRE, 2020), including the requirement to obtain a Timberland Conversion Permit (TCP), a Conversion Exemption, 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 Tehama County General Plan, there were ±239,448 acres of land in the County with a General Plan designation of Timber as of 2009. The project's conversion of up to ±0.75 acres of land represents ±0.0003 percent of land in the County with a Timber designation.

Therefore, the project's impact to timberland and forest land would be considered less than significant because the amount of land that would be converted represents a small percentage of the total forest land in the County. Further, work would be subject to the conditions of a TCP, THP, and/or other related approvals from CAL FIRE.

CUMULATIVE IMPACTS

As documented above, the proposed project would not impact agricultural resources; therefore, the proposed project would not contribute to adverse cumulative impacts to agricultural resources. Project implementation would result in the conversion of timberland and forest land on the Canyon View Loop water tank site. However, the conversion represents a small percentage (±0.0003 percent) of land in the County that is designated timberland. Further, tree removal would be subject to the requirements of CAL FIRE. Therefore, cumulative impacts of the proposed project on timberland and forest land would be less than significant.

MITIGATION

None necessary.

DOCUMENTATION

California Department of Forestry and Fire Protection. 2020. California Forest Practice Rules. https://bof.fire.ca.gov/media/9478/2020-forest-practice-rules-and-act_final_ada.pdf. Accessed September 2021.

Tehama County. 2009. Tehama County General Plan, Chapter 7.0 (Agriculture and Timber Element). https://tehamartpa.org/wp-content/uploads/2020/06/2009-2029-Tehama-County-General-Plan-r1.pdf. Accessed September 2021.

_____. 2021. Tehama County Regional Viewer. https://planningsites.org/TehamaMaps/. Accessed September 2021.

State of California, Department of Conservation. 2021. Important Farmland Finder. https://maps.conservation.ca.gov/dlrp/ciff/. Accessed September 2021.

4.3 AIR QUALITY

Would the project:

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

REGULATORY CONTEXT

FEDERAL

Federal Ambient Air Quality Standards

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

TABLE 4.3-1
Federal Criteria Air Pollutants

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

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

STATE

State Ambient Air Quality Standards

The California CAA establishes maximum concentrations for the seven federal CAPs, as well as the four additional air pollutants identified below. The four additional standards are intended to address regional air quality conditions, not project-specific emissions. These maximum concentrations are known as the California Ambient Air Quality Standards (CAAQSs). The California Air Resources Board (CARB) has jurisdiction over local air districts and has established its own standards for each CAP under the CAAQS. For areas within the State that have not attained air quality standards, the CARB works with local air districts to develop and implement attainment plans to obtain compliance with both federal and State air quality standards.

Visibility-Reducing Particles. Visibility-reducing particles vary greatly in shape, size, and chemical composition, and 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 because of its carcinogenicity. Most vinyl chloride is used to make PVC plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites due to microbial breakdown of chlorinated solvents. Primary effects include dizziness, drowsiness, headaches, and liver damage.

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

TABLE 4.3-2
Federal and State Ambient Air Quality Standards

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

Pollutant	Averaging Time	California Standards	National Standards
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 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

In addition to the California CAPs, Toxic Air Contaminants (TACs) are another group of pollutants regulated under the California CAA. TACs are less pervasive in the urban atmosphere than the CAPs, but are linked to short-term (acute) and long-term (chronic or carcinogenic) adverse human health effects, including cancer, birth defects, neurological damage, and death. 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. Under Assembly Bill 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987, facilities found to release high volumes of toxic air pollution are required to conduct a detailed health risk assessment that estimates emission impacts to the neighboring community and recommends mitigation to minimize TACs.

LOCAL

Tehama County Air Pollution Control District (TCAPCD)

The TCAPCD has the responsibility of enforcing federal and state air quality regulations in Tehama County. The TCAPCD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs, and it regulates agricultural burning. All projects in Tehama County are subject to applicable TCAPCD rules and regulations in effect at the time of construction. Descriptions of specific rules applicable to the proposed project may include, but are not limited to:

- TCAPCD Rule 4:1, Visible Emissions, limits visible emissions from stationary diesel-powered equipment to no more than 40 percent opacity for more than three minutes in any one hour.
- TCAPCD Rule 4:24, Fugitive Dust Emissions, requires that fugitive dust emissions from activities such as grading, soil stockpiling, and demolition must be prevented from being airborne beyond the property line.
- TCAPCD Rule 4:26, Cutback and Emulsified Asphalt, limits emissions of volatile organic compounds (VOCs) from the use of cutback and emulsified asphalt in paving, construction, or maintenance of streets and highways, driveways, and parking lots.
- TCAPCD Rule 4:39, Architectural Coatings, limits the quantity of VOCs in architectural coatings applied within the District.

In Tehama County, only the Tuscan Buttes area at or above 1,800 feet is currently designated a non-attainment area for the federal 8-hour ozone standard. The project site is not located in the federal non-attainment area. Tehama County is designated a non-attainment area for State ozone and PM_{10} standards; the County is designated as an attainment or unclassified area for all other federal and State ambient air quality standards.

As shown in **Table 4.3-3**, Tehama County has adopted air quality thresholds for emissions of Reactive Organic Gases (ROG), Oxides of Nitrogen (NOx), and Particulate Matter, 10 microns in size (PM_{10}) to determine the level of significance for projects subject to CEQA review (TCAPCD Air Quality Planning and Permitting Handbook, April 2015).

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

Level	ROG	NO_X	PM_{10}
Level A	≤ 25 lbs/day	≤ 25 lbs/day	≤ 80 lbs/day
Level B	> 25 lbs/day	> 25 lbs/day	>80 lbs/day
Level C	> 137 lbs/day	> 137 lbs/day	> 137 lbs/day

Source: 2015, Tehama County Air Pollution Control District Air Quality Planning and Permitting Handbook

All discretionary projects in Tehama County are required to implement Standard Mitigation Measures (SMMs) to achieve a reduction in emissions and contribute to a reduction in cumulative impacts. Projects that generate unmitigated emissions above Level B must implement Best Available Mitigation Measures (BAMMs) in addition to the SMMs. If a project is not able to reduce emissions below the Level C threshold, additional mitigation measures are required. If after applying SMMs, BAMMs, and additional mitigation measures, the project emissions still exceed the Level C threshold, an Environmental Impact Report is required.

Tehama County

The County's General Plan includes the following Goal, Policies, and Implementation Measures (IMs) that apply to the proposed project:

Open Space and Conservation		
Goal	OS-2	To maintain, protect, and improve the air quality in Tehama County at acceptable levels as defined by state and federal standards.
Policies	OS-2.1	The County shall require new development projects to incorporate appropriate measures to reduce impacts to air quality.
	OS-2.6	The County shall promote improved air quality benefits through energy conservation measures for new and existing development.
IMs	OS-2.1b	Require all new development projects that exceed TCAPCD's thresholds of significance to incorporate design, construction, and/or operational features that will result in a reduction in emissions when compared to an "unmitigated baseline" project. The measures should consider cost-effectiveness, maximum cost, and the provision of credits for emissions reductions already in place.
	OS-2.1c	Monitor all new development-required air quality mitigations. If mitigations are not being managed properly, take the appropriate steps to correct the situation.

DISCUSSION OF IMPACTS

Questions A and B

As discussed under Regulatory Context, for areas within the State that have not attained air quality standards, the CARB works with local air districts to develop and implement attainment plans to obtain compliance with both federal and State air quality standards. The Northern Sacramento Valley Planning Area (NSVPA) 2018 Triennial Air Quality Attainment Plan serves as the air quality plan for the region. As discussed above, areas above 1,800 feet in elevation in the Tuscan Buttes area are currently designated non-attainment for federal ozone standards; the proposed project is not located in this area. All areas in Tehama County are designated non-attainment for State ozone and PM_{10} standards; the County is designated as an attainment or unclassified area for all other federal and State ambient air quality standards.

Construction Emissions

Project emissions were estimated using Version 2020.4.0 of the California Emissions Estimator Model (CalEEMod). CalEEMod provides default values when site-specific inputs are not available. CalEEMod does not directly calculate ozone emissions. Instead, the emissions associated with ozone precursors (ROG and NO_X) are calculated. For the proposed project, site-specific inputs and assumptions include, but are not limited to, the following:

- Emissions from construction are based on all construction-related activities associated with the proposed uses, including but not limited to grading, use of construction equipment, material hauling, trenching, and re-paving.
- Construction would start in June 2023 and occur over a period of approximately two years.
- Total land disturbance would be approximately 2.75 acres; 6,300 cubic yards (CY) of material would be imported; 8,100 CY would be exported.
- The total area to be paved/re-paved would be 0.97 acres.
- The total weight of demolition debris (pavement, buildings, and water tanks) to be removed from the project site would be approximately 800 tons.
- The total area receiving architectural coatings (structures and water tanks) would be 7,100 square feet for exterior surfaces and 10,200 square feet for interior surfaces.

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

TABLE 4.3-4
Projected Construction Emissions

Pollutants of Concern						
Year	**ROG**	**NO_X**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**SO_2**
	Maximum lbs/day	Maximum lbs/day	Maximum lbs/day	Maximum lbs/day	Maximum lbs/day	Maximum lbs/day
2023	2.73	**29.27**	2.74	1.87	19.37	0.05
2024	7.78	14.31	2.08	1.32	16.13	0.03

Source: CalEEMod, 2021.

As shown in **Table 4.3-4**, construction of the proposed project would exceed the County's Level A threshold of 25 pounds per day for NO_X emissions but would not exceed the Level C threshold of 137 pounds/day. The project would not exceed the County's Level A thresholds for the other pollutants of concern.

In accordance with TCAPCD requirements **Mitigation Measure (MM) 4.3.1** includes standard mitigation measures to minimize emissions during construction and contribute to a reduction in cumulative impacts. **MM 4.3.1** also includes the County's discretionary mitigation measures for construction equipment to further reduce NO_X emissions by requiring the use of electric or alternatively-fueled construction equipment (e.g., compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel), and using gasoline-powered equipment in lieu of diesel-powered equipment, as feasible.

Operational Emissions

There would be an increase in indirect emissions due to electricity used to pump water to the Canyon View Loop area. However, there also would be a decrease in indirect emissions

associated with energy use because old pumps and motors would be replaced with energy-efficient equipment. The new Canyon View Loop water tank includes installation of a solar panel to operate the communication system. A slight reduction in vehicle miles travelled (VMT) is expected because there would be a reduction in vehicle trips associated with water system repairs. Extension of the water system to existing residences on Canyon View Loop would eliminate the need for customers to drive to and from the water tank on Ponderosa Way to obtain drinking water. Therefore, the net increase in operational emissions would be negligible.

Although it is likely that the 2007 moratorium would be lifted following completion of the project, future growth is restricted to parcels within the water service boundary. There are 118 parcels within the District that are not currently connected to the water system. If these parcels develop, they would contribute to indirect emissions associated with the provision of utilities, and direct emissions associated with increased VMT. However, the growth rate is not expected to exceed the County's projected growth rate of 1.48 percent annually and it is unlikely that all 118 parcels would connect to the water system over the next 20 years or more. Further, the project does not include a general plan amendment or rezone that would change anticipated development patterns in the area. Therefore, the project would not result in growth-inducing impacts.

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, and the increase in operational emissions would be minimal, 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, there is no potential for lead emissions.

Hydrogen Sulfide. Hydrogen sulfide is formed during the decomposition of organic material in anaerobic environments, including sewage treatment processes. Development in the project area is served by on-site treatment systems (septic systems), and the proposed project would not result in an increase in hydrogen sulfide emissions associated with sewage treatment.

Vinyl Chloride. Vinyl chloride is used to manufacture polyvinyl chloride (PVC) plastic and other vinyl products. Additionally, vinyl chloride is produced during the microbial breakdown of chlorinated solvents (e.g., engine cleaner, degreasing agent, adhesive solvents, paint removers, etc.). The potential for vinyl chloride exposure is primarily limited to areas in close proximity to PVC production facilities. Because PVC manufacturing facilities are absent from the project area, and project implementation would not result in increased use of chlorinated solvents, there is no potential for vinyl chloride emissions.

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, natural wildfires and biogenic emissions are the primary contributors to visibility-reducing pollutants. For the proposed project, visibility-reducing pollutants (e.g., $PM_{2.5}$ and PM_{10}), would be generated only during construction activities. Because only relatively low amounts of particulates would be generated, potential impacts with respect to visibility-reducing pollutants are less than significant.

Air Quality Attainment Plan

Due to the regional nature of the ozone problem, the air pollution control districts and air quality management districts of the seven counties located in the NSVPA originally prepared an Air Quality Attainment Plan in 1991, and have updated the plan triennially since then. Most recently, the Sacramento Valley Air Quality Engineering and Enforcement Professionals (SVAQEEP) prepared the

NSVPA 2018 Triennial Air Quality Attainment Plan (2018 AQAP). The 2018 AQAP constitutes the region's State Implementation Plan (SIP). The 2018 AQAP was adopted by the TCAPCD Board of Directors on June 9, 2020, and includes updated control measures for the three-year period of 2019 through 2021. Stationary source measures have been incorporated into the TCAPCD rules. Non-stationary source measures include grant funding through the Carl Moyer Program for the purchase/replacement of cleaner-than-required engines and equipment, motor vehicle registration fees, and public education programs.

As stated in the Tehama County Air Quality Planning and Permitting Handbook (2015), development projects are considered consistent with the AQAP if:

- The project does not require a general plan amendment or rezone, and projected emissions of ROG and NO_X from the proposed project are equal to or less than the emissions anticipated for the site if developed under the existing land use designation;
- The project does not exceed the "project alone" significance criteria;
- The lead agency for the project requires the project to implement any applicable emission reduction measures contained in and/or derived from the AQAP; and
- The project complies with all applicable district rules and regulations.

The proposed project consists of water distribution system improvements, and no general plan amendment or rezone is required. As shown in **Table 4.3-4,** the project does not exceed the County's Level A significance thresholds, and the project would comply with applicable TCAPCD rules and regulations. **MM 4.3.1** includes SMMs to minimize emissions during construction and contribute to a reduction in cumulative impacts.

Compliance with applicable State and local regulations, including but not limited to those identified under Regulatory Context above, and implementation of **MM 4.3.1** ensures that impacts are less than significant and that the project complies with the NSVPA AQAP.

Question C

See discussion under Questions A and B. Sensitive receptors are individuals or groups of people that are more affected by air pollution than others, including young children, elderly people, and people weakened by disease or illness. Locations that may contain high concentrations of sensitive receptors include residential areas, schools, playgrounds, childcare centers, hospitals, convalescent homes, and retirement homes. As stated above, the proposed project does not have any components that would result in long-term operational emissions. The proposed project includes construction activities adjacent to single-family residences on Navion Road, Ponderosa Way, Vanguard Avenue, Snark Lane, Cessna Avenue, Jupiter Avenue, Summit Road, Ruth Lane, Piney Lane, Explorer Road, and Canyon View Loop.

As discussed above, the proposed project would generate PM_{10} and other pollutants during construction. Although these emissions would cease with completion of construction work, sensitive uses adjacent to the construction area could be exposed to elevated dust levels and other pollutants. In addition, demolition of the water tanks, well building, and booster pump station could release airborne lead and asbestos particles that could affect sensitive receptors in the area, construction workers, and visitors to the site as described below.

Asbestos-Containing Material and Lead-Based Paint

Due to the age of the structures proposed for demolition, asbestos-containing materials and/or lead-based paint may be on the structures. Pursuant to the U.S. EPA's National Emissions Standards for Hazardous Air Pollutants (NESHAP) and CARB rules, asbestos and lead testing is required prior to demolition of the buildings. **MM 4.3.2** ensures that the water tanks, well building, and booster pump station are tested prior to demolition. In addition, as required by **MM 4.3.3**, materials containing asbestos and/or lead must be disposed of at a facility that is specifically licensed to accept asbestos and/or lead. The work must be completed by a contractor qualified to complete sampling, handling, and disposal of asbestos and/or lead.

Naturally Occurring Asbestos

Naturally occurring asbestos is known to be present in serpentinite and ultramafic rock throughout the State. A review of Department of Conservation records showed that there are no mapped asbestos sites in the project area. In addition, the Geologic Map of California shows that there are no serpentinite or ultramafic rocks in the project area. Therefore, there would be no impacts associated with naturally occurring asbestos.

Compliance with federal, state, and local regulations, and implementation of **MM 4.3.1, MM 4.3.2, and MM 4.3.3** would reduce impacts to a less-than-significant level.

Question D

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

CUMULATIVE IMPACTS

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

The proposed project combined with future development within the project area could lead to cumulative impacts to air quality. However, as stated under Regulatory Context, all projects in the County are subject to TCQPCB rules, and mitigation measures are imposed as necessary. In addition, all projects are subject to State laws that regulate the removal, handling, and disposal of asbestos-containing material and lead-based paint.

As discussed above, the proposed project is subject to State and local regulations adopted for the protection of air quality. With implementation of **MM 4.3.1** through **MM 4.3.3,** the proposed project would have a less-than-significant cumulative impact on local and regional air quality.

MITIGATION

MM 4.3.1 The following measures shall be implemented throughout construction:

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

b. Haul vehicles transporting soil into or out of the property shall be covered.

c. All non-paved areas with vehicle/construction equipment 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. Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day to remove excessive accumulations of silt and/or mud resulting from activities on the development site.

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

h. A publicly visible sign with a telephone number and person to contact regarding dust complaints shall be posted near construction activities. The telephone number of the District shall also be visible to ensure compliance with District Rule 4.1 (Nuisance) and 4:24 (Fugitive Dust Emissions).

i. Designated parking areas shall be provided for construction workers in order to reduce dust emissions.

j. All construction equipment shall be maintained in proper tune in accordance with manufacturer's specifications.

k. All portable construction equipment, including generators and air compressors rated over 50 brake horsepower, shall be registered in the California Air Resources Control Board's Portable Equipment Registration Program, or shall be permitted by the District as a stationary source.

l. Electric construction equipment shall be used where feasible.

m. Gasoline-powered equipment shall be used in lieu of diesel-powered equipment, where feasible.

n. Alternatively-fueled construction equipment shall be used, where feasible (e.g., compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel).

MM 4.3.2 Prior to demolition of the Ponderosa Way water tanks, well building, and booster pump station, a comprehensive survey shall be completed in locations where asbestos and lead-based paint are suspected. Removal, handling, and disposal of material containing asbestos or lead-based paint must be conducted in accordance with National Emission Standard for Hazardous Air Pollutants (NESHAP), California Occupational Health and Safety Administration (CalOSHA), and other applicable federal, State, and local regulations.

MM 4.3.3 In the event previously undetected asbestos or lead-containing materials are discovered during construction, activities that may affect the materials shall cease until results of additional surveys are reviewed. Alternatively, the Sky View County Water District can assume that the materials are hazardous. Any identified hazardous materials shall be disposed of in accordance with applicable hazardous waste regulations.

DOCUMENTATION

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

Federal Clean Water Act

Section 404

Under Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and fill material into wetlands and waters of the U.S. The USACE requires that a permit be obtained prior to the placement of structures within, over, or under navigable waters and/or prior to discharging dredged or fill material into waters below the ordinary high-water mark (OHWM). There are several types of permits issued by the USACE that are based on the project's location and/or level of impact. Regional general permits are issued for recurring activities at a regional level. Nationwide permits (NWPs) authorize a wide variety of minor activities that have minimal effects. Projects that are not covered under a regional general permit and do not qualify for a NWP are required to obtain a standard permit (e.g., individual permit or letter of permission).

Section 401

Under Section 401 of the CWA, a project requiring a USACE Section 404 permit is required to obtain a State Water Quality Certification (or waiver) to ensure that the project will not violate established State water quality standards. The RWQCB regulates waters of the State and has a policy of no-net-loss of wetlands. The RWQCB typically requires mitigation for impacts to wetlands before it will issue a water quality certification.

Federal Endangered Species Act

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

Federal Migratory Bird Treaty Act

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

Fish and Wildlife Conservation Act

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

Bald and Golden Eagle Protection Act

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

Magnuson-Stevens Fishery Conservation and Management Act

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

STATE

California Endangered Species Act

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

CESA prohibits the take of State-listed threatened and endangered species, but CDFW has the authority to issue incidental take permits under special conditions when it is demonstrated that impacts are minimized and mitigated. Fully protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take. One exception allows the collection of fully protected species for scientific research.

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

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

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

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

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

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

Oak Woodlands Conservation Act

The State of California provides for oak protection through the Oak Woodlands Conservation Act (Act), last amended in 2005. The Act applies only when the lead agency is a county and the project is located in an unincorporated county area. The Act requires a determination of whether the project may result in the conversion of oak woodlands that will have a significant effect on the environment as well as implementation of oak woodland mitigation measures, if necessary.

LOCAL

Tehama County

The County's General Plan includes the following Goal, Policies, and Implementation Measures (IMs) that apply to the proposed project:

Open Space and Conservation		
Goal	OS-3	To protect, preserve, and enhance fish and wildlife species by maintaining healthy ecosystems.
Policies	OS-3.1	The County shall preserve and protect environmentally-sensitive and significant land and water valuable for their plant and wildlife habitat, natural appearance, and character.
	OS-3.2	The County shall protect areas identified by the California Department of Fish and Game and the California Natural Diversity Data Base as critical riparian zones.
	OS-3.4	The County shall endeavor to provide for wildlife circulation in and around new development projects, major transportation facilities, roads, railroads, and canals.
IMs	OS-3.1f	Require that prior to any public or private development project in areas identified to contain or possibly contain special-status species – based on the Land Use Map, data provided in the Biological Resource section of the General Plan EIR or other suitable technical material available at the time – a biological survey be conducted by the project applicant to identify potentially occurring special-status species or their habitat using protocol acceptable to the regulatory agencies with authority over these species, or species presence shall be inferred. The results of the survey shall be documented in a Biological Resources Report.
	OS-3.1g	For each project in which unavoidable removal of wetland habitat or other waters of the U.S. will occur, the County shall require the project proponent to develop a compensation plan prior to construction.
	OS-3.4a	Review projects through the entitlement process and CEQA analysis to ensure that they comply with this policy if the site contains unique habitat, creeks and/or wooded corridors.
	OS-3.4b	The effect on wildlife movement shall be analyzed prior to the approval of proposed development that encroaches upon vital corridors. The analysis shall include consultation with the CDFG to properly evaluate current wildlife movement and migration.
	OS-3.4c	In such cases where habitat preserves are crossed by a roadway, or where two adjacent preserves are separated by a roadway, the roadway shall be designed or upgraded with wildlife passable fencing separating the roadway from the preserve and/or shall incorporate design features that allow for the movement of wildlife across or beneath the road without causing a hazard for vehicles and pedestrians on the roadway.

DISCUSSION OF IMPACTS

Questions A and B

The evaluation of potential impacts on candidate, sensitive, and/or special-status species entailed records searches and field evaluations conducted by ENPLAN and documented in the Biological Study Report (BSR) prepared for the project (see **Appendix B**).

The records searches included a review of California Natural Diversity Data Base (CNDDB) records for special-status plants and wildlife; California Native Plant Society records for special-status plant

species; federal records for listed, proposed, and candidate plant and wildlife species under jurisdiction of the USFWS and NMFS; critical habitat data maintained by the USFWS and NMFS; and essential fish habitat (EFH) data maintained by the NMFS.

ENPLAN biologists conducted botanical and wildlife surveys on April 29, May 22 and 31, June 16, and August 25, 2021. The special-status plant species potentially occurring in the study area would have been evident at the time the fieldwork was conducted. Some of the special-status wildlife species would not have been evident at the time the fieldwork was conducted; however, determination of their potential presence could readily be made based on observed habitat characteristics.

Special-Status Plant Species

Review of the USFWS species list for the project area did not identify any federally listed or candidate plant species as potentially being affected by the proposed project. The project site does not contain designated critical habitat for federally listed plant species.

Review of CNDDB records showed that no special-status plant species have previously been reported in the general vicinity of the project site. Two special-status plants have been reported within a five-mile radius of the study area: Callahan's mariposa-lily and long-stiped campion. One non-status plants, Butte County fritillary, has also been reported in the five-mile search radius. The CNPS Inventory for the Finley Butte and Lyonsville quadrangles identifies three additional special-status plants: blushing wild buckwheat, mingan moonwort, and watershield. Seven additional non-status species are identified by CNPS in the Finley Butte and Lyonsville quadrangles.

As documented in the BSR (**Appendix B**), no special-status plant species were observed during the botanical survey. Therefore, the proposed project would have no impact on special-status plant species.

Special-Status Animal Species

Review of the USFWS species list for the project area identified the following federally listed animal species as potentially being affected by the proposed project: California red-legged frog, delta smelt, and vernal pool fairy shrimp. The USFWS does not identify any designated critical habitat in the study area for any federally listed animal species.

Review of CNDDB records showed that one special-status animal species, American peregrine falcon, was reported in the general vicinity of the project area. Four additional special-status animals have been reported within a five-mile radius of the study area: foothill yellow-legged frog, Northern goshawk, Sierra Nevada red fox, and western pond turtle. Additionally, three non-status animals have been reported in the search radius: gray-headed pika, Klamath sideband, and Wawona riffle beetle.

NMFS records identify the following federally listed anadromous fish species in both the USGS Finley Butte and Lyonsville quadrangles: Chinook salmon - Central Valley Spring Run (CVSR) evolutionarily significant unit (ESU), Chinook salmon - Sacramento River winter-run (SRWR) ESU, and California Central Valley (CCV) steelhead - distinct population segment (DPS). As documented in the BSR, although no special-status species were observed during the field surveys, potentially suitable habitat occurs in the project area for CCV steelhead.

CCV Steelhead (*Oncorhynchus mykiss*), Federally Threatened
Paynes Creek has intermittent flow in the vicinity of the well site, and CCV steelhead have a potential to be present in Paynes Creek in during the wet season. Although no trenching through the creek would occur, completion of the improvements would require construction equipment to enter the creek (e.g., to transport equipment to the well site on the south side of Paynes Creek and to construct the access stairway across Paynes Creek). Steelhead, if present, could be directly impacted.

MM 4.4.1 limits construction activities in Paynes Creek to the period between June 1 and October 31 when the creek is dry or has water temperatures that are lethal to CCV steelhead. Potential indirect effects on steelhead include habitat degradation if sediment laden water enters Paynes Creek, and/or downstream waters. BMPs for sediment control and spill prevention would be implemented in accordance with SWRCB requirements to minimize/avoid the potential for indirect impacts on CCV steelhead.

Critical Habitat/Essential Fish Habitat

NMFS records show that the segment of Paynes Creek in the study area is not designated as critical habitat for CCV steelhead or CV spring-run Chinook salmon (NMFS, 2021a). The nearest segment of Paynes Creek that is designated as critical habitat is ±18 miles southwest of the well site. The nearest designated critical habitat to the study area is South Fork Battle Creek, ±0.5 miles north of Canyon View Loop (CCV steelhead and chinook salmon).

NMFS identifies Essential Fish Habitat (EFH) in the Paynes Creek-Sacramento River watershed for Chinook salmon (NMFS, 2020b). Salmon EFH consists of "those waters and substrate necessary for salmon production needed to support a long-term sustainable salmon fishery and salmon contributions to a healthy ecosystem." Salmon EFH includes all those streams, lakes, ponds, wetlands, and other water bodies currently or historically accessible to salmon in Washington, Oregon, Idaho, and California. Salmon EFH excludes areas upstream of longstanding naturally impassible barriers (i.e., natural waterfalls in existence for several hundred years), but includes aquatic areas above all artificial barriers except specifically named impassible dams.

As described above, completion of the improvements would require construction equipment to enter Paynes Creek (e.g., to transport equipment to the well site on the south side of Paynes Creek and to construct the access stairway across the creek. These activities may temporarily impact a small amount (less than 250 square feet) of the stream and its associated riparian habitat. Although no riparian trees would be removed, impacts could include trimming of riparian vegetation. **MM 4.4.2** is included to avoid/minimize the loss of riparian habitat and to promote quick regeneration of riparian plants following completion of construction. In addition, BMPs would be implemented to control erosion and sedimentation and prevent damage to streams, watercourses, and aquatic habitat.

CDFW was contacted and asked to provide information on permit requirements for the project (Adam McKannay, personal communication, October 27, 2021). Mr. McKannay stated that engineering calculations must be submitted to CDFW with the application for a Streambed Alteration Agreement to confirm that the stairway passes the 100-year flood flow and its debris load. As discussed in Section 4.10 (Hydrology and Water Quality), under Question C(iv), a flood hydraulic analysis was completed by Pacific Hydrologic Incorporated (PHI) and concluded that the peak water surface elevation during the most probable 100-year flood event in Paynes Creek is ±3,081.05 feet near the south abutment of the proposed access stairway.

As shown in **Figure 3.2-2**, the new welhouse and transformer pad would be constructed above the estimated 100-year floodplain. As shown in **Figure 3.2-3**, the access stairway would be supported by spread footing foundation systems on both sides of the creek. **MM 4.10.1** is included to ensure that structures are constructed above the 100-year floodplain and are adequately anchored to prevent flotation, collapse, or lateral movement of the facilities in a manner that would impede or redirect flood flows and that structural supports do not snare or collect debris carried by the flow of water in Paynes Creek.

With implementation of **MM 4.4.2** and BMPs, the potential for direct and indirect impacts on EFH would be negligible. In the long term, installation of the access stairway would allow District staff to walk to the wellhouse during high stream flows rather than drive through the flowing channel; thus, the stairway would provide a long-term enhancement to EFH. Implementation of **MM 4.10.1** avoids/minimizes the potential for the project to impede flood flows or cause the build-up of debris in Paynes Creek.

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 that occur in surfaced roadways and graveled road shoulders would not directly affect nesting birds because no nesting habitat would be affected; indirect effects to nearby nesting habitats, such as nest abandonment by adults in response to loud noise levels, are likewise not expected because birds that may nest adjacent to roadways would be accustomed to periodic loud noises and other human-induced disturbances.

Construction activities, particularly those involving vegetation removal at and near Paynes Creek for installation of the access path and stairway, and tree removal on the water tank sites, 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 4.4.3**, 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 4.4.4,** the potential for introduction and spread of noxious weeds can be avoided/minimized by using only certified weed-free erosion control materials, mulch, and seed; limiting any import or export of fill material to material that is known to be weed free; and requiring the construction contractor to thoroughly wash all construction vehicles and equipment at a commercial wash facility before entering and upon leaving the job site. Implementation of **MM 4.4.4** reduces potential impacts related to the introduction and spread of noxious weeds to a less-than-significant level.

Therefore, implementation of **MM 4.4.1** through **MM 4.4.4**, combined with BMPs for sediment control and spill prevention, ensures that direct and indirect impacts to special-status species and their habitats are less than significant.

Question C

ENPLAN prepared an Aquatic Resources Delineation Report for the proposed project in November 2021 (ENPLAN, 2021). Field investigations were conducted on June 16 and 18, and August 25, 2021, to identify wetlands and other waters of the U.S. and State in the project site. As a result of the field delineation effort, 104 features (±0.66 acres) were mapped in the study area in four categories:

94 constructed ditches, 7 ephemeral streams, 1 intermittent stream, and 2 seasonal wetlands. Maps depicting wetlands and other waters of the U.S. and State are included in **Appendix C**.

The constructed ditches are primarily located along roadways and intercept sheet flow and drain roadside runoff. All of the water carried by the constructed features dissipates after a short distance or is conveyed through culverts beneath driveways or roadways, eventually dissipating in the surrounding uplands.

Two of the ephemeral streams (55:ES and 56:ES in Figure 5, Appendix C) are natural features that cross through the water transmission main corridor and are tributary to Paynes Creek; both ephemeral streams were dry during all three field visits. The remaining ephemeral streams generally consist of flow exiting culverts or constructed ditches, with the flow being directed outside the road corridor. One of the streams (59:ES in Figure 6, Appendix C) discharges to an isolated wetland (60:SW in Figure 6, Appendix C), and the others discharge to uplands.

Paynes Creek, the only intermittent stream in the study area, originates east of the project area and flows west, eventually reaching the Sacramento River about six miles north-northeast of Red Bluff. The two seasonal wetlands are located in depressions where water carried by ephemeral or constructed features collects for an extended period of time. One of the seasonal wetlands (18:SW in Figure 2, Appendix C) is a low spot in a constructed ditch on the south side of Canyon View Loop. The other (60:SW in Figure 6, Appendix C) is a disturbed depression in an off-road area generally between Ponderosa Way and Snark Lane that receives flow from an ephemeral stream. Each wetland is less than 0.01 acre.

As documented in the Aquatic Delineation Report, three features appear to be subject to USACE jurisdiction based on the Rapanos wetland definition: Paynes Creek (57:IS, ±0.11 acre) and the two tributary ephemeral streams (55:ES, less than 0.01 acre; and 56:ES, 0.04 acre). 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 Water 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 the transmission main and waterlines; however, no permanent impacts would occur. To the extent feasible, final design of the improvements will avoid direct impacts to wetlands and other waters. **MM 4.4.5** is included to require that prior to commencement of construction activities exclusionary fencing, flagging, or other markers shall be installed around wetlands and other jurisdictional waters that are to be avoided.

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 USACE Nationwide Permit. A project requiring a USACE Section 404 permit is also required to obtain a State Water Quality Certification (or waiver) to ensure that the project will not violate established State water quality standards. A Streambed Alteration Agreement from CDFW is also required. Among other conditions, the USACE permit requires that temporary fills be removed in their entirety and the affected areas be returned to pre-construction 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 4.4.5** would reduce the project's potential impacts on wetlands and other waters of the U.S. and State to a less-than-significant level.

Question D

As discussed under Questions A and B, there is a potential for CCV steelhead to be present in Paynes Creek in the study area. However, **MM 4.4.1** is included to limit construction-related activities in Paynes Creek to the dry season when fish would not be present.

According to CDFW, the project area is identified as a critical winter range for mule deer. Critical deer winter ranges can include corridors essential for movement, staging areas where deer temporarily congregate, habitats containing high quality winter forage, or other elements important to the survival of deer in winter (CDFW, 2020). The Tehama County General Plan specifies that oak woodlands in eastern Tehama County provide the primary winter range for migratory deer. The project does not include any components that would remove winter forage for deer.

Daytime movement of deer and other terrestrial wildlife species along stream corridors and other locations in the study area may be temporarily affected during construction activities; however, wildlife species would be able to alter their routes to move around the construction areas or use the stream corridors during non-working hours. There is a slight possibility that wildlife could be trapped in open trenches and pipes during construction. **MM 4.4.6** is included to prevent the inadvertent entrapment of wildlife.

Although the project includes installation of permanent fencing around the water tank sites, there are ample areas adjacent to these sites that allow for wildlife movement. Therefore, because construction-related activities that may impede the movement of wildlife would be temporary and would cease at completion of the project, permanent fencing would not significantly impede the movement of wildlife, and **MM 4.4.6** would prevent the inadvertent entrapment of wildlife, impacts would be less than significant.

Question E

As identified under Regulatory Context, the County's General Plan includes goals, objectives, policies, and programs related to the conservation of natural resources. Implementation of **MM 4.4.1 through MM 4.4.6** and compliance with resource agency permits ensures consistency with local policies that protect biological resources. Therefore, impacts would be less than significant.

Question F

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

The conversion of plant and wildlife habitat on a regional level as a result of cumulative development would potentially result in a regionally significant cumulative impact on special-status species and their habitats. Implementation of **MM 4.4.1 through MM 4.4.6**, implementation of BMPs for erosion and sediment control, and compliance with conditions of resource agency permits ensures that the project's contribution to cumulative regional impacts is less than significant.

MITIGATION

MM 4.4.1 Construction-related activities within the ordinary high-water mark of streams shall be limited to the period between June 1 and October 31, or as may otherwise be specified through jurisdictional permits/certifications issued by the California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and/or Regional Water Quality Control Board. If work is proposed outside of the agency-approved work windows, the Sky View County Water District shall obtain approval from those agencies prior to conducting such work, and shall implement any additional measures that may be required.

MM 4.4.2 Loss of riparian habitat along drainages shall be minimized by implementing the following measures:

a. Minimize the construction disturbance to riparian habitat along drainage systems through careful pre-construction planning.

b. Install high-visibility fencing, flagging, or other markers along the outer edges of the construction zone where needed to prevent accidental entry into riparian habitat.

c. Stockpile equipment and materials outside of riparian habitat, in the designated staging areas.

d. Prune any riparian plants at ground level where feasible (as opposed to mechanically removing the entire plant and root system) in temporary use areas, which will promote regeneration from the root systems.

MM 4.4.3 In order to avoid impacts to nesting birds and raptors protected under the federal Migratory Bird Treaty Act and California Fish and Game Code §3503 and §3503.5, including their nests and eggs, one of the following shall be implemented (removal of raptor nests at any time of year is prohibited unless appropriate permits are obtained):

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

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

   Surveys shall begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey shall 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 electronically to the California Department of Fish and Wildlife at R1CEQARedding@wildlife.ca.gov upon completion. The survey shall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction survey, the site shall be resurveyed.

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

MM 4.4.4 The potential for introduction and spread of noxious weeds shall be avoided/minimized by:

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

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

c. Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the job site and upon leaving the job site.

MM 4.4.5 High-visibility fencing, flagging, or other markers shall be installed along the outer edges of the construction zone adjacent to wetlands and other waters designated for avoidance. The fencing location shall be determined by a qualified biologist in consultation with the project

engineer and the Sky View County Water District. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the fenced area. The exclusionary fencing shall be periodically inspected during construction activities to ensure the fencing is properly maintained. The fencing shall be removed upon completion of work.

MM 4.4.6 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.

DOCUMENTATION

California Department of Fish and Wildlife. 2021. California Regional Conservation Plans. https://wildlife.ca.gov/Conservation/Planning/NCCP/Plans. Accessed October 2021.

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Tehama County. 2009. Tehama County General Plan. https://www.co.shasta.ca.us/index/drm/planning/general-plan. Accessed October 2021.

National Marine Fisheries Service. 2021. Protected Resources App (GIS Data Downloads and Services). https://www.webapps.nwfsc.noaa.gov/portal/apps/webappviewer/index.html?id=7514c715b8594944a6e468dd25aaacc9. Accessed October 2021/

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4.5 CULTURAL RESOURCES

Would the project:

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

REGULATORY CONTEXT

FEDERAL

Section 106 of the National Historic Preservation Act (NHPA)

Section 106 of the NHPA and its implementing regulations require federal agencies to take into account the effects of their activities and programs on historic properties. A historic property is any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places (NRHP) (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. 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:

1. The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR).
2. The resource is included in a local register of historic resources, as defined in §5020.1(k) of the Public Resources Code (PRC), or is identified as significant in a historical resources survey that meets the requirements of §5024.1(g) of the PRC (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).
3. The lead agency determines that the resource may be a historical resource as defined in PRC §5020.1(j), or §5024.1, or may be significant 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

Tehama County

The County's General Plan includes the following Goal, Policies, and Implementation Measures (IMs) that apply to the proposed project:

Open Space and Conservation		
Goal	OS-10	To preserve the historic and archaeological resources of the County for their scientific, educational, aesthetic, recreational, and cultural values.

Policies	OS-10.1	The County should protect and preserve significant archaeological and cultural resources.
	OS-10.4	The County shall encourage and support inter-agency cooperation to protect historic, archaeological, and cultural resources.
Ims	OS-10.1a	Refer all new development proposals on undisturbed land to the Northwest Information Center at California State University, Chico for an evaluation of potential impacts to archaeological and cultural resources.
	OS-10.1d	Require appropriate surveys and site investigations when needed as part of the initial environmental assessment for development projects in accordance with the California Environmental Quality Act (CEQA). Surveys and investigations shall be performed under the supervision of a professional archaeologist or other person qualified in the appropriate field, and approved by the County. It is recognized that Timber Harvest Plans have been declared by the State to be functionally equivalent to environmental assessments required by CEQA.
	OS-10.1e	Impose the following conditions on all discretionary projects in areas which do not have a significant potential for containing archaeological or paleontological resources: "The Planning Dept. shall be notified immediately if any prehistoric, archaeological, or paleontological artifact is uncovered during construction. All construction must stop and an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action.
	OS-10.4a	Consult with local, State, and federal agencies as well as local Native American communities in cases where new development may result in disturbance to historic, archaeological, and/or cultural resources.

DISCUSSION OF IMPACTS

Questions A and B

A Cultural Resources Inventory (CRI) was completed for the proposed project by ENPLAN in October 2021. The study included a records search, Native American consultation, and field evaluation. The records search included review of records at the Northeast Information Center of the California Historical Resources Information System at California State University, Chico (NEIC); National Register of Historic Places (NRHP); California Register of Historical Resources (CRHR); California Inventory of Historic Resources; California Historical Landmarks; California Points of Historical Interest; Directory of Properties in the Historic Property Data Files for Shasta County; Native American Heritage Commission (NAHC); and historical maps and aerial photographs.

Area of Potential Effects (APE)

The APE boundaries were devised in consultation with PACE Engineering, based on the project design. The APE includes areas for staging and construction access, as well as sufficient area for construction. The vertical APE (i.e., associated with the potential for buried cultural resources) is based on the engineering design of the project and reflects the planned depths of the excavations associated with the project. The maximum vertical APE for most of the improvements is 3 feet. The depth of waterlines would increase up to six feet when passing under existing culverts.

Records Search

Research was conducted by the NEIC on May 24, 2021, and covered an approximate half-mile radius around the APE for previously recorded historic and prehistoric sites and for previously conducted surveys. The size and scope of the search area was determined to be sufficient based on the results. The records search included review of official records and maps for archaeological sites and surveys in Tehama County, the National Register of Historic Places, California Register of Historical Resources, California Points of Historic Interest, California Inventory of Historic Resources, California

Historical Landmarks, Built Environment Resource Directory, and the Handbook of North American Indians, Vol. 8, California.

NEIC reported that eight surveys have previously been conducted within the half-mile search radius, two of which covered portions of the project's APE. Seven resources have been recorded within the half-mile search radius. No resources have been recorded in the APE.

Native American Consultation

In response to ENPLAN's request for information, on May 26, 2021, the NAHC conducted a search of its Sacred Lands File. The search did not reveal any known Native American sacred sites or cultural resources in the project area. The NAHC recommended that the Redding Rancheria be contacted regarding known tribal cultural resources that may be present in the project area. A comment solicitation letter was sent to Jack Potter, Chairperson of the Redding Rancheria, on June 22, 2021, with a request to provide comments on the proposed project. Follow-up correspondence was sent to Mr. Potter in July 2021, and a telephone call was placed. No comments were submitted by Mr. Potter or any other representatives from the Redding Rancheria.

Field Evaluation

A field survey was completed by an ENPLAN archaeologist on August 25, 2021, to identify cultural resources that would be potentially affected by the proposed project. The entire APE was surveyed. In areas covered by surfaced roads, the uncovered ground on both sides of the road was surveyed; areas that were not covered by surfaced roads were surveyed via transects no larger than 30 feet, with exact spacing varying as appropriate.

Conclusions

During the field evaluation, no prehistoric resources were identified. Two potentially historic structures (over 50 years old) were identified: the two Ponderosa Way water tanks. As documented in the CRI, the water tanks do not meet the criteria for listing in the NRHP or CRHR. In addition, the integrity of the structures is poor due to deterioration from weathering, modifications to the structures over the years, and/or damage to the structures. Based on the geomorphological and topographic characteristics of the project site, the results of the records and literature search, and the age of soils mapped in the area, the project area is considered to have a low potential for historic and prehistoric resources. **MM 4.5.1** addresses the inadvertent discovery of cultural resources and ensures that impacts are less than significant.

Question C

The project area does not include any known cemeteries, burial sites, or human remains. However, it is possible human remains may be unearthed during construction activities. **MM 4.5.2** ensures if human remains are discovered, there shall be no further excavation or disturbance of the site until the County coroner has been contacted and has made the necessary findings as to origin and disposition in accordance with §15064.5(e) of the CEQA Guidelines. Therefore, impacts 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 §15064.5 and related provisions of the PRC. In addition, projects with federal involvement would be subject to Section 106 of the NHPA.

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

MITIGATION

MM 4.5.1 In the event of any inadvertent discovery of cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly modified lithics, historic artifacts, etc.), all work within 50 feet of the find shall be halted until a professional archaeologist can evaluate the significance of the find in accordance with PRC §21083.2(g) and §21084.1, and CEQA Guidelines §15064.5(a). If any find is determined to be significant by the archaeologist, Sky View County Water District staff 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 Sky View County Water District prior to resuming construction.

MM 4.5.2 In the event that human remains are encountered during construction activities, the Sky View County Water 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

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4.6 ENERGY

Would the project:

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

REGULATORY CONTEXT

There are no federal 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. Considerations may include building code compliance, the project's size, location, orientation, equipment use, and any

renewable energy features of the project. The energy use analysis may be included in related analyses of air quality, GHG emissions, transportation, or utilities at the discretion of the lead agency.

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. The RPS has been subsequently amended since its adoption, most recently by SB 100 (2018), which codified targets of 60 percent renewable energy by 2030 and 100 percent renewable energy by 2045. In addition, SB 350 (2015) requires California utilities to develop integrated resource plans that incorporate a GHG emission reduction planning component beginning January 1, 2019.

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.

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

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

LOCAL

Tehama County

The County's General Plan includes the following Policy and Implementation Measures (IMs) that apply to the proposed project:

Open Space and Conservation		
Policy	OS-2.6	The County shall promote improved air quality benefits through energy conservation measures for new and existing development.
IM	OS-2.6a	Require energy-conserving features in the design and construction of new development. Many options exist for reducing pollution from energy-producing systems, including the following: ● Requiring the use of the best available technologies to reduce air pollution. ● Using building materials and methods that reduce emissions. ● Requiring that development projects be located and designed in a way that minimizes direct and indirect emission of air contaminants. ● Installing efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units. ● Utilizing automated time clocks or occupant sensors to control heating systems.

OS-2.6f Promote the incorporation of energy-conserving design and construction techniques in all facilities.

DISCUSSION OF IMPACTS

Questions A and B

There would be an increase in energy demand due to electricity used to pump water to the Canyon View Loop area. However, there also would be a decrease in energy use in the water system because old pumps and motors would be replaced with energy-efficient equipment. The project must also comply with applicable State Building, Energy, and CALGreen Codes related to energy efficiency as described under Regulatory Context.

The proposed project includes replacement of water mains and lines that have a history of significant leaks and failures. Repairing leaks will eliminate the need for District staff to frequently fix the lines, resulting in a reduction in energy use associated with maintenance vehicles. Likewise, by eliminating leaks, the need for groundwater pumping would be reduced. The water distribution system would be extended to existing residences on Canyon View Loop; thus, eliminating the need for customers to haul their own water and resulting in a reduction in energy use associated with customers driving to and from the water tank on Ponderosa Way. In addition, a solar panel would be installed to operate equipment at the Canyon View Loop water tank site, thus minimizing the use of electricity. Therefore, the net increase in operational emissions would be negligible.

Energy consumption during construction would occur from diesel and gasoline used for construction equipment, haul trucks, and construction workers travelling to and from the work site. The project also must comply with State regulations that require the use of fuel-efficient construction equipment, as well as the mitigation measures for construction equipment included in MM 4.3.1. Therefore, impacts related to energy would be less than significant.

CUMULATIVE IMPACTS

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

MITIGATION

Implementation of **Mitigation Measure MM 4.3.1(g).**

DOCUMENTATION

California Air Resources Board. 2016. In-Use Off-Road Diesel-Fueled Fleets Regulation Overview. https://ww3.arb.ca.gov/msprog/ordiesel/faq/overview_fact_sheet_dec_2010-final.pdf. Accessed September 2021.

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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 (NEHR) Program. The Federal Emergency Management Agency (FEMA) is designated as the lead agency of the program. Other NEHR Act agencies include the National Institute of Standards and Technology, National Science Foundation, and the U.S. Geological Survey (USGS).

STATE

California Alquist-Priolo Earthquake Fault Zoning Act

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

California Seismic Hazards Mapping Act

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

California Building Standards Code

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

LOCAL

Tehama County

The County's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

Open Space and Conservation Element		
Goal	OS-12	To protect and maximize the present and future productive, economic, and environmental values of the County's soil resources.
Policies	OS-12.1	The County shall recognize the need to protect and conserve areas where soils have high resource values, especially in terms of potential agricultural productivity.
	OS-12.2	The County shall exercise an appropriate degree of regulation designed to minimize soil erosion, including the administration of standards for grading and site clearance related to development projects.
	OS-12.3	The County shall continue to encourage sound soil management, erosion prevention and control programs and projects, including the use of windbreaks, minimum tillage practices, grazing management, and riparian area rehabilitation.
Safety Element		
Goal	SAF-4	To minimize the threat of personal injury and property damage due to seismic and geologic hazards.
Policies	SAF-4.1	The County shall require that all construction comply with the California Building Code, including the requirements for seismic design.
	SAF-4.2	The County shall require that all new development and redevelopment projects that have the potential for seismic or geological hazards, including liquefaction, landslides, and expansive soils, be subject to geotechnical evaluation prior to approval.
	SAF-4.4	The County shall incorporate seismic and geologic hazards mitigation measures into County ordinances and procedures.
IMs	SAF-4.1a	Ensure that the requirements of the California Building Code, including seismic requirements, are included as part of the building permits issuance and inspection process.
	SAF-4.2a	Require applicants to submit a geotechnical report prepared by a licensed soils or geotechnical engineer for any new development or redevelopment project subject to expansive soils or other potential seismic or geologic

	hazards. The report shall address any potential seismic or geologic hazards and recommend measures to mitigate for those hazards.
SAF-4.2b	Require a soils report, prepared by a licensed soils engineer, for all projects within areas of identified soil limitations. Soils reports shall evaluate the shrink/swell and liquefaction potential of sites and recommend measures to minimize unstable soil hazards.
SAF-4.4a	All development proposals shall be referred to the County Planning Department, County Building and Safety Department, and Road Department/ Public Works Department to review and comment on any potential seismic or geologic impacts or potential hazards. The environmental review for development proposals shall include a full inventory of potential soil, seismic, or geologic concerns; an assessment of potential project impacts; and identification of any mitigation and/or monitoring measures. Issues that are related to liquefaction and potential ground failure, if any, shall be addressed. Project design, grading, and building design and construction techniques shall be used, where appropriate, to minimize these hazards. The applicant shall be responsible for providing any and all studies pertaining to potential seismic and geologic hazards and per County requirements.
SAF-4.4c	Review and ensure that any specific plans are consistent with the goals and policies of the General Plan and shall identify any potential geologic, soil, and/or seismic hazards and include measures to reduce the risk of these hazards.

Tehama County Grading and Erosion Control Ordinance

TCMC Chapter 9.43 (Grading and Erosion Control) requires that all construction projects involving site grading shall include erosion control plans prepared by a registered civil engineer, a certified professional soil erosion and sediment control specialist, or a soil scientist certified by the American Registry of Certified Professionals in Agronomy, Crops and Soils. When construction activities propose to disturb areas of existing vegetation and ground cover by grading, effective erosion and sediment control measures shall be employed, including but not limited to best management practices.

DISCUSSION OF IMPACTS

Question A

i, ii, and iii)

According to the Alquist-Priolo Earthquake Fault Zoning Map, the nearest Special Study Zone is the Hat Creek Fault Zone located approximately 29 miles northeast of the project area. The 2015 Fault Activity Map, prepared by the California Geological Survey, indicates that the nearest potentially active fault is the Battle Creek fault located approximately 8.6 miles north of the project site.

As stated in the Geotechnical Exploration Report prepared for the proposed project (KC Engineering, 2021), although the site is located in a seismically active region, no evidence of active faulting was visible in the project area during reconnaissance surveys completed by KC Engineering. The Geotechnical Report states that it is the opinion of KC Engineering that there is no potential for fault-related surface rupture in the study area.

The Geotechnical Report also addresses the potential for seismic-related ground failure, including liquefaction. 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. This is most likely to occur in alluvial (geologically recent, unconsolidated sediments) and stream channel deposits, especially when the groundwater table is high.

According to the Geotechnical Study, field exploration included drilling six exploratory test borings and three exploratory test pits. Samples from the borings/pits were sent to a laboratory to verify soil classifications and characteristics in order to determine recommendations for the proposed project. As stated in the Geotechnical Study, the underlying materials encountered on the site are comprised of silty clay and sand that were stiffer with depth, and cobbles/boulders throughout the matrix, overlying volcanic bedrock. Groundwater was not encountered at the site of the field explorations. It is the opinion of KC Engineering that liquefaction-related hazards at the project site are unlikely.

Further, the potential for liquefaction and soil strength loss was evaluated in accordance with the 2019 California Building Code to identify design measures necessary to withstand anticipated ground acceleration during a seismic event. The water storage tanks and new buildings will be designed and constructed in accordance with the earthquake-resistance provisions of the American Water Works Association (AWWA) Standards and the current edition of the California Building Code. Compliance with existing State standards and codes ensures that potential impacts associated with seismic-related risks are less than significant.

iv)

The water tank sites, fire hydrants, and waterlines/service connections are located on top of a ridgeline with relatively level topography. These improvements are located away from steep slopes and would not be at risk due to landslides.

The transmission main corridor traverses a steep canyon with an average slope of 40 percent, and in some areas reaching 50 to 55 percent. Trenching on steep slopes would disturb the soil and could temporarily increase the risk of landslides; however, the Geotechnical Report includes recommendations for temporary excavations and ground support shoring systems to prevent caving of trench walls. In addition, following installation of the main, the trenches would be filled and the soil compacted as recommended in the Geotechnical Report, which would reduce landslide risks. Whereas much of the existing transmission main is above ground, the entire length of the replacement main would be installed subsurface and would be at lower risk of damage than the existing line during a landslide.

The proposed access stairway and transmission main segment that would be mounted on the stairway are located at the bottom of a steep slope and are susceptible to damage should a landslide occur. However, the Geotechnical Report includes recommendations for footings for the access stairway and states that the footings would be founded in the underlying bedrock, which would minimize the risk of damage should a landslide occur.

As required by **MM 4.7.1**, all grading plans, foundation plans, and structural calculations shall be reviewed by a qualified professional to ensure that recommendations included in the Geotechnical Report are implemented. **Mitigation Measure MM 4.7.2** ensures that a qualified engineer monitor and inspect work activities in accordance with the Geotechnical Report. Implementation of **MM 4.7.1** and **MM 4.7.2** ensures that impacts associated with landslides would be less than significant.

Question B

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

The project design incorporates various measures to reduce the potential for substantial soil erosion. These measures include minimizing vegetation removal, surfacing the new access path with aggregate base, and requiring trench cut-offs in all trenches exceeding three percent slope.

As noted in Section 1.8 (Regulatory Requirements), the District is required to obtain coverage under the NPDES permit for *Discharges of Storm Water Runoff Associated with Construction*

Activity (Construction General Permit by submitting a Notice of Intent to the RWQCB. The permitting process requires the development and implementation of an effective SWPPP that includes BMPs to reduce pollutants as well as any additional controls necessary to meet water quality standards. 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.

In addition, as further discussed in Section 4.10 (Hydrology and Water Quality), because the District is not covered by a Phase I or II Municipal Separate Storm Sewer System (MS4) permit or approved Storm Water Management Plan, the project must comply with post-construction standards identified in the SWRCB Construction General Permit. Post-construction standards include the requirement to implement structural and/or non-structural measures to reduce runoff, thereby minimizing the potential for erosion. Because BMPs for erosion and sediment control would be implemented in accordance with existing requirements, the potential for soil erosion and loss of top soil would be less than significant.

Questions C and D

See discussion under Question A. Some soils have a potential to swell when they absorb water and shrink when they dry out. These expansive soils generally contain clays that expand when moisture is absorbed into the crystal structure. According to the KC Engineering Geotechnical Report, laboratory testing included an analysis of the expansion potential of near surface soils. Although some of the soils in the project area may be considered expansive, the Geotechnical Report includes recommendations to minimize risks associated with unstable and/or expansive soils. For example, the Geotechnical Report recommends over-excavation of the water tank sites and using imported non-expansive soil for fill material. Implementation of **MM 4.7.1 and MM 4.7.2** ensures that recommendations from the Geotechnical report are implemented. Therefore, impacts would be less than significant.

Question E

The proposed project does not include the installation or use of alternative wastewater disposal systems. Therefore, there would be no impact.

Question F

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

According to the California Geological Survey, the geology of the project area consists of tertiary pyroclastic and volcanic mudflow deposits, and the potential for paleontological resources to be present in the project area is low. Additionally, there is no record of paleontological resources in the project area. Therefore, impacts would be 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. All development projects in the County must implement BMPs for erosion control in accordance with State and/or local requirements to ensure that potential impacts associated with soil erosion are minimized/avoided. In addition, implementation of **MM 4.7.1** and **MM 4.7.2** ensures that recommendations included in the Geotechnical Report are implemented to minimize potential risks associated with seismic-related hazards and potentially unstable soils. Implementation of BMPs and **MM 4.7.1** and **MM 4.7.2** ensures that the proposed project's cumulative impacts are less than significant.

MITIGATION

MM 4.7.1 All grading plans, foundation plans, and structural calculations shall be reviewed by a qualified professional to ensure that all recommendations included in the KC Engineering Geotechnical Report are implemented. Applicable notes shall be placed on the attachment sheet to the improvements plans and in applicable project plans and specifications.

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

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

DOCUMENTATION

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Tehama County. 2018. Multi-Jurisdictional Hazard Mitigation Plan. https://mitigatehazards.com/tehama-county-hmp-documents/. Accessed September 2021.

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U.C. Berkeley, Museum of Paleontology. 2021. Fossil Index. https://ucmpdb.berkeley.edu/. Accessed September 2021.

U.S. Department of Agriculture, Natural Resource Conservation Service. 2021. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed September 2021.

4.8 GREENHOUSE GAS EMISSIONS

Would the project:

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

REGULATORY CONTEXT

FEDERAL

U.S. Environmental Protection Agency

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

STATE

California Executive Order (EO) S-3-05

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

Assembly Bill 32 (Global Warming Solutions Act of 2006)

As required by AB 32 (2006), CARB adopted the initial Climate Change Scoping Plan in 2008 that identified the State's strategy to achieve the 2020 GHG emissions limit via regulations, market-based mechanisms, and other actions. 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. Executive Order B-30-15 (2015) extended the goal of AB 32 and set a GHG reduction goal of 40 percent below 1990 levels by 2030. In December 2017, CARB adopted the second update to the Scoping Plan that includes strategies to achieve the 2030 mid-term target and substantially advance toward the 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels. The 2017 Scoping Plan Update recommends that local governments aim to achieve a community-wide goal of no more than 6 MT CO_2e per capita by 2030 and no more than 2 MT CO_2e per capita by 2050, which is consistent with the State's long-term goals.

Senate Bill 32/Assembly Bill 197

These two bills were signed into legislation on September 8, 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 that GHG emissions reductions be achieved in a manner that benefits the state's most disadvantaged communities. 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. AB 197 also provides more legislative oversight of CARB by adding two new legislatively appointed non-voting members to the CARB Board and limiting the term length of Board members to six years.

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 to develop integrated resource plans that incorporate a GHG emission reduction planning component beginning January 1, 2019. SB100 (2018) codified targets of 60 percent renewable energy by 2030 and 100 percent renewable energy by 2045.

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.

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

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

Mobile Source Strategy

CARB's Mobile Source Strategy, adopted in 2016, 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.

Senate Bill 210 (2019), Heavy-Duty Vehicle Inspection and Maintenance Program

Under SB 210, heavy-duty diesel trucks will have to pass a smog check to ensure vehicle emission controls are maintained in order to register or operate in California. Upon implementation of the Program, CARB must provide mechanisms for out-of-state owners of heavy-duty vehicles to establish and verify compliance with State regulations for heavy-duty diesel trucks prior to entering the State.

Senate Bill 44 (2019), Medium- and Heavy-Duty Vehicles: Comprehensive Strategy

SB 44 requires CARB to update the State's Mobile Source Strategy no later than January 1, 2021, to include a comprehensive strategy to reduce emissions from medium- and heavy-duty vehicles in order to meet federal ambient air quality standards and reduce GHG emissions from this sector. The Bill also requires CARB to establish emission reduction goals for 2030 and 2050 for medium- and heavy-duty vehicles.

CEQA Guidelines

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

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

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

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

Greenhouse Gases Defined

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

TABLE 4.8-1
Greenhouse Gases

Greenhouse Gas	Description
Carbon dioxide (CO_2)	CO_2 is the primary greenhouse gas emitted through human activities. In 2019, CO_2 accounted for about 80 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)	CH_4 is the second most prevalent greenhouse gas emitted in the United States from human activities. Methane is emitted by natural sources such as wetlands, as well as human activities such as the raising of livestock; the production, refinement, transportation, and storage of natural gas; methane in landfills as waste decomposes; and in the treatment of wastewater.
Nitrous oxide (N_2O)	In 2019, N_2O accounted for about 7 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)	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)	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)	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.

Greenhouse Gas	Description
Nitrogen trifluoride (NF_3)	NF_3 is a colorless, odorless, nonflammable gas that is highly toxic by inhalation. It is one of several gases used in the manufacture of liquid crystal flat-panel displays, thin-film photovoltaic cells and microcircuits.

Source: *U.S. Environmental Protection Agency, 2021*.

LOCAL

Tehama County

The Tehama County Air Pollution Control District prepared an Air Quality Planning and Permitting Handbook (Guidelines for Assessing Air Quality Impacts) in April 2015. The Handbook states that the TCAPCD threshold for GHG emissions is 900 metric tons per year (MT/yr) CO_2e. If a project exceeds this threshold, mitigation measures must be considered.

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_2 equivalent (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	50 -200
CH_4	25	12
N_2O	298	114
HFCs	Up to 14,800	Up to 270
PFCs:	7,390-12,200	2,600 – 50,000
SF_6	22,800	3,200
NF_3	17,200	740

Source: *U.S. Environmental Protection Agency, 2020.*

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. As stated above, TCAPCD has established a numerical threshold of significance of 900 MT/year CO_2e. 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).

Project GHG Emissions

GHG emissions for the proposed project were estimated using the CalEEMod.2020.4.0 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.

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

- Emissions from construction are based on all construction-related activities associated with the proposed uses, including but not limited to grading, use of construction equipment, material hauling, trenching, and re-paving.
- Construction would start in June 2023 and occur over a period of approximately two years.
- Total land disturbance would be approximately 2.75 acres; 6,300 cubic yards (CY) of material would be imported; 8,100 CY would be exported.
- The total area to be paved/re-paved would be 0.97 acres.
- The total weight of demolition debris (pavement, buildings, and water tanks) to be removed from the project site would be approximately 800 tons.
- The total area receiving architectural coatings (structures and water tanks) would be 7,100 square feet for exterior surfaces and 10,200 square feet for interior surfaces.

Construction Emissions

Construction of the proposed project would emit GHG emissions as shown in **Table 4.8-3**, primarily from the combustion of diesel fuel in heavy equipment.

TABLE 4.8-3
Construction-Related Greenhouse Gas Emissions (Metric Tons)

Year	Carbon Dioxide (CO_2)	Methane (CH_4)	Nitrous Oxide (N_2O)	Carbon Dioxide Equivalent (CO_2e)
2023	163.28	0.04	0.002	165.01
2024	274.63	0.06	0.003	276.98
Totals	**437.91**	**0.10**	**0.005**	**441.99**

Source: CalEEMod, 2021. Note: Total values may not add due to rounding (see Appendix A).

As indicated in **Table 4.8-3,** CO_2e associated with construction of the proposed project would not exceed the referenced numerical threshold of 900 MT/year of CO_2e.

Operational Emissions

As stated in Section 4.3 (Air Quality) under Questions A and B, there would be an increase in indirect emissions due to electricity used to pump water to the Canyon View Loop area.

However, there also would be a decrease in indirect emissions because old pumps and motors would be replaced with energy-efficient equipment. A slight reduction in VMT is expected because there would be a reduction in vehicle trips associated with water system repairs and residents on Canyon View Loop driving to and from the Ponderosa Way tank site to obtain water. The new Canyon View Loop water tank includes installation of a solar panel to operate the communication system. Therefore, the net increase in operational emissions would be negligible.

Although future development in the area would contribute to indirect emissions associated with the provision of utilities, and direct emissions associated with increased VMT, development would be in accordance with the County's General Plan, and emissions would not be greater than analyzed in the General Plan environmental documents.

Therefore, potential construction-related and operational impacts associated with GHG emissions would be less than significant.

Question B

See discussion under Regulatory Context and Question A above. The project would not exceed the County's threshold for GHG emissions. In addition, the project would comply with applicable State regulations pertaining to GHG emissions including but not limited to those identified under Regulatory Context above. Therefore, the project would not conflict with a plan, policy, or regulation adopted for the purpose of reducing GHG emissions; there would be no impact.

CUMULATIVE IMPACTS

GHG emissions and global climate change are, by nature, cumulative impacts. Unlike criteria pollutants, which are pollutants of regional and local concern, GHGs are global pollutants and are not limited to the area in which they are generated. As discussed under Regulatory Context above, the State legislature has adopted numerous programs and regulations to reduce statewide GHG emissions. As documented above, construction-related GHG emissions would not exceed the referenced numerical threshold of 900 MT/year CO_2e, and operational emissions associated with future development in the area would be in accordance with the County's General Plan. Therefore, the proposed project's contribution to cumulative GHG emissions would be less than significant.

MITIGATION

None necessary.

DOCUMENTATION

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University of California, Berkeley Law. 2021. California Climate Policy Dashboard. https://www.law.berkeley.edu/research/clee/research/climate/climate-policy-dashboard/. Accessed September 2021.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

REGULATORY CONTEXT

FEDERAL

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is the primary federal law for the regulation of solid waste and hazardous waste in the United States and provides for the “cradle-to-grave” regulation that 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 of. The U.S. Environmental Protection Agency (USEPA) has primary responsibility for implementing the RCRA.

USEPA's Risk Management Plan

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

Federal Occupational Safety and Health Administration (OSHA)

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

U.S. Department of Transportation

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

STATE

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

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

Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the RCRA and the State Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

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.

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 CVRWQCB.

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 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 Public Resources Code (Wildland Fires)

In areas of the State designated by CAL FIRE as being within a Very High Fire Hazard Severity Zone (VHFHSZ), construction contractors are required to comply with the following provisions of the California Public Resources Code (PRC):

- PRC §4427. On days when burning permits are required, flammable materials shall be removed within ten feet of equipment that could create a spark, fire, or flame. In addition, a round point shovel no less than 46-inches in length, and one backpack pump water-type fire extinguisher shall be provided for use at the immediate work area.
- PRC §4431. On days when burning permits are required, portable tools powered by a gasoline-fueled internal combustion engine shall not be used within 25 feet of any flammable material without providing a round point shovel no less than 46-inches in length, or one serviceable fire extinguisher for use at the immediate work area.
- PRC §4442. Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire.

California Fire Code

Chapter 33 of the CFC includes minimum safeguards that must be implemented during construction, alteration, and demolition activities to protect life and property from fire. Requirements are provided for cutting and welding activities, storage of flammable and combustible materials, blasting operations, and other construction-related activities. Vehicle access to the construction site for fire department personnel must be provided by either temporary or permanent roads capable of supporting vehicle loading under all weather conditions.

California Building Code

California Building Code Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure) includes standards for new construction in Wildland-Urban Interface (WUI) Fire Areas (fire hazard severity zones. The purpose of Chapter 7A 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

Tehama County

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

Safety Element		
Goals	SAF-3	To protect the people and property within Tehama County against fire related loss and damage.
	SAF-9	To minimize the risk of personal injury, property damage, and environmental degradation resulting from the use, transport, disposal, and release or discharge of hazardous materials.
Policies	SAF-9.1	The County shall ensure that the use, transport, and disposal of hazardous materials comply with all federal, state, and local regulations and requirements.
	SAF-9.2	The County shall implement safety measures regarding the transport, use, storage, and disposal of hazardous materials within the County.

DISCUSSION OF IMPACTS

Question A

The project may result in a slight increase in use of sodium hypochlorite for water disinfection; however, there would be no significant increase in the transport, use, or disposal of hazardous materials. The storage of chemicals associated with the water system would primarily occur in the new booster pump station building and would be in accordance with applicable federal, State, and local regulations, as would the transport and use of such chemicals.

During construction, limited quantities of hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc., may temporarily be brought into areas where improvements are proposed. There is a possibility of accidental release of hazardous substances into the environment, such as spilling petroleum-based fuels used for construction equipment. Construction contractors would be required to comply with applicable federal and state environmental and workplace safety laws. Additionally, construction contractors are required to implement BMPs for the storage, use, and transportation of hazardous materials. Therefore, impacts would be less than significant.

Question B

See Section 4.3 (Air Quality), Questions C and D for a discussion regarding potential impacts associated with asbestos and lead.

Treated Wood Waste

The wooden electrical and telecommunication poles to be replaced and/or reused on site may have been treated with preserving chemicals that may include, but are not limited to, arsenic, chromium, copper, creosote, and pentachlorophenol. These chemicals are known to be toxic or carcinogenic and require specific handling prescribed by State and federal regulations. When the treated wood has reached the end of its usefulness, it is regarded as treated wood waste (TWW). If TWW is not properly disposed of, the chemicals it contains can contaminate surface water and groundwater. This poses a risk to human health and the environment. Regulations that allowed alternative management standards for disposal of TWW to California Class II and III landfills as a non-hazardous waste expired on January 1, 2021. TWW must now be managed as a hazardous waste and must be transported to a Class I hazardous waste landfill, or to an authorized out-of-state landfill, for disposal.

DTSC has recognized that transitioning to the new State regulations will significantly affect the transportation and disposal of TWW and has agreed to issue temporary Disposal Facility Variances to allow TWW to be disposed in composite-lined landfills. Additionally, DTSC has developed alternative management standards for TWW that are based upon full hazardous waste requirements but are adjusted for the unique circumstances associated with TWW. These standards specify conditions of reuse of TWW as described below:

- Reuse is onsite at the facility at which the treated wood waste was generated.

- At the time of reuse, reuse is consistent with the Federal Insecticide, Fungicide, and Rodenticide Act's (7 U.S.C. Sec. 136 et seq.) approved use of the preservative with which the treated wood waste has been treated.
- Prior to reuse, the treated wood waste is handled in compliance with all applicable management standards of Health and Safety Code §25230 - 25230.18.

Because the reuse, removal, and/or disposal of TWW would occur in accordance with DTSC requirements, impacts associated with TWW would be less than significant. Additionally, as stated under Question A, compliance with existing State and federal regulations minimizes potential risks associated with hazardous materials.

Question C

According to the Tehama County Department of Education, the school nearest to the project site is Plum Valley Elementary School located on Plum Creek Road, approximately 6.5 miles west of the project site. There are no other schools within one-quarter mile of the proposed improvements. Therefore, there would be no impact.

Question D

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

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

Review of the above records shows that the nearest active clean-up site is the Plum Valley Elementary School on Plum Creek Road, approximately 6.5 miles west of the project site. Due to the distance between the project site and the clean-up site, there would be no impact.

Question E

According to Tehama County GIS data for the Corning and Red Bluff Airports, the project area is not within an airport land use plan area. According to the Federal Aviation Administration (FAA), the nearest public airport or public use airport is Rogers Field in Plumas County, approximately 29 miles east of the project site. Therefore, the proposed project would not result in a safety hazard or excessive noise associated with a public airport or public use airport for people residing or working in the project area. There would be no impact.

Question F

The project does not involve a use or activity that would 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).

The District will also be required to obtain encroachment permits from Caltrans and Tehama County prior to working in the State or County road ROW. At the discretion of the State or County, the District may be required to submit a temporary traffic control plan for review and approval prior to issuance of an encroachment permit. The plan would identify the location of the work, affected roads, and types and locations of temporary traffic control measures (i.e., signs, cones, flaggers, etc.) that would be implemented during the work. Compliance with conditions of the State and/or County permit ensures that the proposed project would not interfere with emergency response vehicles or an emergency evacuation plan; therefore, impacts during construction 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 project would increase water storage, increase the number of fire hydrants, and improve fire flows, which would improve fire protection and the ability to fight wildfires in the area.

Proposed structures that may be susceptible to damage from a wildland fire include the well house, booster pump station and water tanks. However, the project would comply with applicable State building and fire codes and standards for new construction in fire hazard severity zones. The well house would be constructed with cement siding and the booster pump station would be a concrete masonry building with a metal roof to minimize the risk of damage during a wildfire. The water tanks would be bolted steel and at low-risk of fire damage. In addition, the existing overhead electric line between the well site and the Ponderosa Way water tank site would be replaced with underground conduit to reduce potential wildfire risks. Segments of the existing transmission main are above-ground and at risk of damage from a wildfire. The entire length of the water transmission main would be installed subsurface to reduce the risk of wildfire damage.

Equipment used during construction activities, including power tools and acetylene torches, may create sparks that could ignite dry grass. According to FHSZ maps prepared by CAL FIRE, the project area is located within a Very High FHSZ in a State Responsibility Area. Thus, construction activities are subject to the PRC wildfire measures and State Fire Code regulations that identify minimum safeguards that must be implemented during construction, alteration, and demolition activities to protect life and property from fire.

In the long-term, the project would improve fire protection in the area and have a beneficial effect. Compliance with existing regulations ensures that the potential for impacts during construction is less than significant.

CUMULATIVE IMPACTS

As documented above, the proposed project does not include any components that would result in a significant increase in long-term risks associated with hazards or hazardous materials. The storage and use of hazardous materials during construction must be conducted in accordance with State and local regulations, and steps must be taken during construction to reduce potential impacts associated with wildland fires. Construction would comply with California Building Code and Fire Code requirements for new structures in high fire hazard severity zones. These regulations ensure that impacts are less than significant and that activities do not result in impacts that would be cumulatively considerable.

MITIGATION

None necessary.

DOCUMENTATION

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4.10 HYDROLOGY AND WATER QUALITY

Would the project:

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

REGULATORY CONTEXT

FEDERAL

Clean Water Act (CWA)

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

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

Federal Anti-Degradation Policy

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

Safe Drinking Water Act

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

Federal Emergency Management Agency (FEMA)

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

National Pollutant Discharge Elimination System

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

STATE

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code §13000 *et seq*.) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of waters of the State. The Porter-Cologne Act applies to surface waters, wetlands, and groundwater, and to both point and non-point sources of pollution. The Act requires a Report of Waste Discharge for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state. The RWQCBs enforce waste discharge requirements identified in the Report.

State Anti-Degradation Policy

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

use of the water, and not result in water quality less than that prescribed in water quality plans and policies.

National Pollution Discharge Elimination System

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

Construction Activity and Post-Construction Requirements

Discharges from construction sites that disturb one acre or more of total land area are subject to the NPDES permit for *Discharges of Storm Water Runoff associated with Construction Activity* (currently Order No. 2009-009-DWQ), also known as the Construction General Permit. The permitting process requires the development and implementation of an effective Storm Water Pollution Prevention Plan (SWPPP). Coverage under the permit is obtained by submitting a Notice of Intent (NOI) to the SWRCB and preparing the SWPPP prior to the beginning of construction. The SWPPP must include BMPs to reduce pollutants and any more stringent controls necessary to meet water quality standards. Dischargers must also comply with water quality objectives as defined in the applicable Basin Plan.

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

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

Dewatering Activities (Discharges to Surface Waters and Storm Drains)

Construction dewatering activities that involve the direct discharge of relatively pollutant-free wastewater that poses little or no threat to the water quality of waters of the U.S. are subject to the provisions of CVRWQCB Order R5-2016-0076-01 (NPDES No. CAG995002), *Waste Discharge Requirements, Limited Threat Discharges to Surface Water*, as amended. WDRs for this order include discharge prohibitions, receiving water limitations, monitoring, and reporting, etc. Coverage is obtained by submitting a NOI to the applicable RWQCB.

Dewatering Activities (Discharges to Land)

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

Water Quality Control Plans (Basin Plans)

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

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), enacted in September 2014, established a framework for groundwater resources to be managed by local agencies in areas designated by the Department of Water Resources as "medium" or "high" priority basins. Basins were prioritized based, in part, on groundwater elevation monitoring conducted under the California Statewide Groundwater Elevation Monitoring (CASGEM) program. The SGMA requires local agencies in medium- and high-priority basins to form Groundwater Sustainability Agencies (GSAs) and be managed in accordance with locally-developed Groundwater Sustainability Plans (GSPs). Medium- and high-priority basins must be managed under a GSP by January 31, 2022. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans.

LOCAL

Tehama County

The County's General Plan includes the following Goals, Policies, and Implementation Measures (IMs) that apply to the proposed project:

Safety Element		
Goal	SAF-5	To minimize and reduce the risk of personal injury and property damage resulting from flooding.
Policy	SAF-5.2	The County shall require that adequate drainage facilities exist for both existing and new development.
IMs	SAF-5.1a	Strongly discourage any projects that would result in new or increased flooding impacts on adjoining parcels or upstream and downstream areas not designed and intended to accommodate the increase in flood waters.
	SAF-5.3c	The County shall require that all new developments do not exceed the cumulative rate of peak runoff over pre-development levels.
Land Use Element		
Goal	LU-10	To promote development patterns that recognize the need to preserve water resources, consistent with other stated goals.
Policy	LU-10.1	The County shall actively promote the implementation of the County's Groundwater Management Plan (GWMP).
IM	LU-10.1a	Implement the recommended management and monitoring actions of the GWMP and identify and quantify the water production, water quality, and groundwater recharge activities occurring within the County.
Open Space Element		
Goal	OS-1	To ensure that water supplies of sufficient quality and quantity will be available to serve the needs of the Tehama County, now and into the future.
Policies	OS-1.1	The County shall protect and conserve water resources and supply systems through sound watershed management.
	OS-1.3	Surface water quality and stream flows for water supply, water recharge, recreation, and aquatic ecosystem maintenance shall be protected while respecting adjudicated and appropriated (California recognized water rights) rights of use.
IMs	OS-1.1c	Ensure that projects adhere to the regulations of the State of California Reclamation Board, California Department of Fish and Game, Regional Water Quality Control Board, and U.S. Government.
	OS-1.3a	Protect surface and groundwater from major sources of pollution, including hazardous materials contamination and urban runoff.

	OS-1.3f	Require development to incorporate runoff control measures into their site design or to participate in an area-wide runoff control management effort consistent with standards developed by the Public Works Department.
	OS-1.3g	Establish and require the use of best management practices to protect receiving waters from the adverse effects of construction activities, sediment, and urban runoff.

Tehama County Code

Chapter 15.52 (Floodplain Management Regulations) of the Tehama County Code of Ordinances includes regulations for development within a floodplain. The purpose of the regulations, in part, is to protect human life and health and to minimize damage to public facilities and utilities such as water and gas mains; electric, telephone, and sewer lines; and streets and bridges that are located in areas of flood hazard.

A building permit application for development in a floodplain must include detailed information that demonstrates that structures are constructed at or above the 100-year base flood elevation and/or are floodproofed so that the structure is watertight with walls substantially impermeable to the passage of water.

In addition, documentation must be provided to verify that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point. Upon completion of construction, the elevation of the lowest floor of the structure must be certified by a registered professional engineer or surveyor and verified by the County Building Inspector. Pursuant to Section 15.52.330(B) of the County Code, when base flood elevation data has not been provided by FEMA, flood data from a federal or state agency, or from another source, may be referenced.

DISCUSSION OF IMPACTS

Questions A and E

The proposed project has the potential to temporarily degrade water quality due to increased erosion during project construction; however, as discussed under Regulatory Context above, and in Section 4.7 under Question B, the SWRCB Construction General Permit requires implementation of an effective SWPPP that includes BMPs to control construction-related erosion and sedimentation and prevent damage to streams, watercourses, and aquatic habitat. Because the District is not covered under a Phase I or II MS4 permit or SUSWMP, the project is subject to post-construction requirements included in the SWRCB Construction General Permit to ensure that the post-construction conditions at the project site do not cause or contribute to direct or indirect impacts from stormwater runoff (i.e., pollution and/or hydromodification) upstream or downstream.

In addition, if dewatering is required during construction, the project is subject to a CVRWQCB General Order that includes specific requirements for monitoring, reporting, and implementing BMPs for construction dewatering activities. The District must also obtain a State Water Quality Certification (or waiver) from the CVRWQCB to ensure that the project will not violate established State water quality standards. The District must also 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.

As discussed under Regulatory Context above, the SGMA established a framework for groundwater resources to be managed by local agencies in areas designated by the Department of Water Resources as medium or high priority basins. The project site is not located in a medium or high priority basin, and there is not a sustainable groundwater management plan that applies to the proposed project. Compliance with CVRWQCB permit conditions 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 sole source of water for the District is a groundwater well located adjacent to Paynes Creek. Due to ongoing leaks in the transmission main, water lines, and service connections, an unknown amount of groundwater is lost each year. Reducing the number of leaks in the system would reduce the amount of groundwater pumping that is currently required, thereby having a beneficial effect on groundwater. For the most part, the project would replace existing structures on the well site and the Ponderosa Way water tank site. Although the new buildings would have a larger floor area than those replaced, the difference is negligible and would not increase the amount of impervious surface in a manner that would prevent infiltration of water into the soil.

Improvements on the Canyon View Loop water tank site would result in an increase in impervious surface of ±1,250 square feet, which is the footprint of the water tank. The addition of impervious surface would decrease the area available for water penetration, thereby reducing local groundwater recharge potential. However, the increase in impervious surface represents a very small percentage of the entire surface area of the hydrologic region. In addition, runoff would eventually be directed to areas with pervious surface, and the undeveloped land adjacent to the Canyon View Loop water tank site would continue to provide for groundwater recharge. Therefore, the project's impacts associated with groundwater recharge would be less than significant.

Question C

i, ii, and iii)

Completion of the proposed improvements would require installation of surface drainage improvements to direct water away from building foundations in accordance with California Building Code requirements. As stated under Question B, although new buildings on the well site and Ponderosa Way water tank site would have a larger floor area than the buildings replaced, this would not result in a significant change in drainage patterns due to the addition of impervious surfaces. As shown in **Figure 3.2.2**, drainage from the well site would be directed to a cobble-lined drainage swale south and east of the new well building.

As shown in **Figure 3.2.6**, an overflow drain from the new Ponderosa Way water tank would daylight southwest of the tank and be routed to an energy dissipator with 10 feet by 20 feet of riprap. The energy dissipator would slow water flows, thereby protecting downstream areas from erosion and polluted runoff. As shown in **Figure 3.2-8**, an overflow drain from the Canyon View water tank would direct drainage from the tank to a cobble-lined ditch along the west side of Canyon View Loop. The final drainage plan would be designed by a licensed professional engineer to ensure that the project does not increase the rate of surface runoff in a manner that results in erosion or siltation, an increase in polluted runoff, or flooding on- or off-site (also see discussion under question 4.10(C)(iv) below). In addition, as discussed under Question A, BMPs would be implemented throughout construction to minimize erosion and runoff in accordance with existing regulations; therefore, impacts would be less than significant.

Photo 4.10.1. Transmission Main on South Side of Paynes Creek.

iv)

According to the District Manager, the well house has not flooded in the 18 years that he has been at the District, and there are no documented reports of flooding at the well house. The existing transmission main is supported on the south side of the creek by a concrete-filled barrel (see **Photo 4.10.1**).

According to the KC Engineering Geotechnical Report, it is reported that the barrel has not been exposed to the creek, even in higher winter storm flows, since the original construction of the transmission main. Because the transmission main is higher than the barrel, it can be assumed that

the main also has not been exposed to flood waters in recent years. **Photo 4.10.2** was taken from the Paynes Creek channel under the transmission main. **Photo 4.10.3** was taken from the south side of Paynes Creek facing the north side of the creek.

Nonetheless, due to the proximity of the improvements to Paynes Creek, flooding is a possibility. Improvements in potentially flood-prone areas include the wellhouse building and appurtenant facilities, the access stairway over Paynes Creek, and the transmission main attached to the side of the stairway. According to FEMA, potential flood hazard zones in the project area have not been mapped.

Therefore, a flood hydraulic analysis was completed by Pacific Hydrologic Incorporated (PHI) to estimate the peak flow in the reach of Paynes Creek adjacent to the well site (see **Appendix D)**. The PHI analysis determined that the peak water surface elevation during the most probable 100-year flood event in Paynes Creek is ±3,081.05 feet near the south abutment of the proposed access stairway.

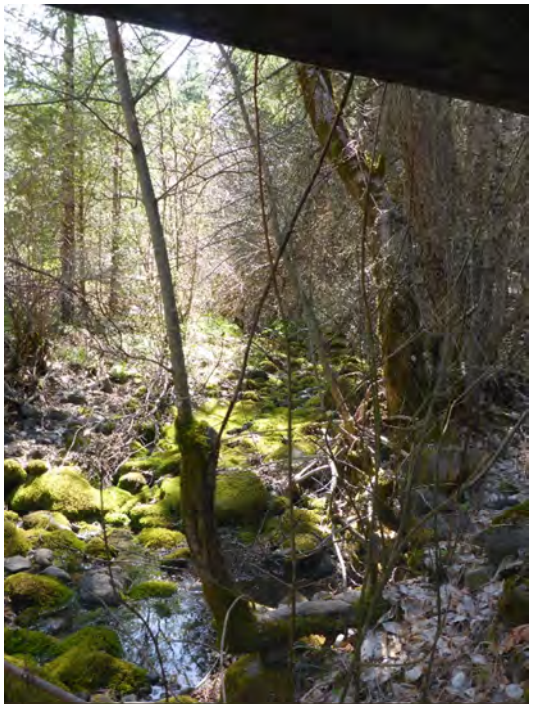

Photo 4.10.2. Paynes Creek Channel Under the Transmission Main.

Photo 4.10.3. Transmission Main Facing the North Side of the Creek.

As shown in **Figure 3.2-2**, the proposed wellhouse and transformer pad would be constructed above the estimated 100-year floodplain. The elevations at the top of the footings of the proposed stairway structure would be ±3,082.1 feet on the south side of Paynes Creek and ±3,092.74 feet on the north side Paynes Creek. The finished floor elevation of the well building would be ±3,082.1 feet, and the elevation of the transformer pad would be ±3,082.25 feet. As shown in **Figure 3.2-3**, the access stairway would be supported by spread footing foundation systems on both sides of the creek, as recommended in the KC Engineering Geotechnical report. No structural supports that could impede flood flows or cause the build-up of debris would be placed in the channel of the creek.

MM 4.10.1 is included to minimize damage to the wellhouse and well by ensuring that these facilities are constructed above the base flood elevation (BFE) and are adequately anchored to prevent flotation, collapse, or lateral movement of the facilities in a manner that would impede or redirect flood flows. MM 4.10.1 also ensures that the stairway and transmission main mounted on the stairway do not change the direction and/or velocity of the flow of water or the potential for these improvements to snare or collect debris carried by the flow of water. MM 4.10.1 ensures that utilities in the floodplain are designed to minimize/avoid infiltration of floodwaters into the system and discharge from the system into floodwaters, and ensures that improvements do not cumulatively increase the water

surface elevation of the base flood by more than one foot at any point. Implementation of **MM 4.10.1** ensures that the project would not impede or redirect flood flows; impacts would be less than significant.

Question D

A tsunami is a wave generated in a large body of water (typically the ocean) by fault displacement or major ground movement. The project area is located approximately 136 miles east of the Pacific Ocean, and there is no risk of tsunami. A seiche is a large wave generated in an enclosed body of water in response to ground shaking. The largest enclosed body of water near the project site is Lake Almanor, about 30 miles southeast of the project site. Seismic activity could potentially create a large wave in Lake Almanor; however, such a wave would not result in adverse effects in the project area. As documented under Question C iv), there is no history of flood damage in the project area; therefore, the potential for release of pollutants due to flooding is less than significant.

CUMULATIVE IMPACTS

The proposed project and other potential cumulative projects in the region, including growth resulting from build-out of the County's General Plan, could result in degradation of water quality, adverse impacts to groundwater supplies and groundwater recharge, and an increased risk of flooding due to additional surface runoff generated by the projects.

All projects in the State that result in land disturbance of one acre or more are required to comply with the State Water Board General Construction NPDES permit, which requires implementation of BMPs to reduce pollutants and any additional controls necessary to meet water quality standards, as well as to avoid the creation of unstable slopes or filled areas that could adversely influence stormwater runoff. Cumulatively considerable projects are also subject to conditions of regulatory agency permits and County regulations. Compliance with existing regulatory agency requirements ensures that the proposed project's cumulative impacts to hydrology and water quality are less than significant.

MITIGATION

MM 4.10.1 In order to avoid/minimize potential effects, the following measures shall be implemented for all improvements located in the 100-year floodplain:

a. Final construction/improvement plans for the wellhouse improvements, well casing, stairway over Paynes Creek, transformer pad, and the transmission main mounted on the stairway shall be reviewed and approved by a registered professional engineer or surveyor to ensure that improvements are constructed above the most probable 100-year flood elevation of 3,081.05 feet, as determined by the Paynes Creek Flood Study prepared by Pacific Hydrologic Incorporated on November 12, 2021.

b. All structures shall be adequately anchored to prevent flotation, collapse, or lateral movement of the structure that could occur due to hydrodynamic and hydrostatic loads, including the effects of buoyancy.

c. Documentation shall be provided by a registered professional engineer demonstrating that improvements in the 100-year floodplain do not change the direction and/or velocity of the flow of water in Paynes Creek; improvements do not increase the most probable 100-year base flood elevation (BFE) during the occurrence of the base flood discharge; and improvements do not create an obstruction that could snare or collect debris carried by the flow.

d. Following completion of improvements that are within the floodplain, the elevations of the structures shall be certified by a registered professional engineer or surveyor to ensure that the improvements are above the most probable 100-year BFE.

DOCUMENTATION

California Department of Water Resources. 2021. Sustainable Groundwater Management Act, Basin Prioritization Dashboard. https://gis.water.ca.gov/app/bp-dashboard/final/. Accessed September 2021.

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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

FEDERAL

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, which are comprehensive long-term plans for the physical development of the county or city, and any land outside its boundaries that is determined to bear relation to its planning. A development project must be found to be consistent with the General Plan prior to project approval.

LOCAL

Tehama County

The Tehama County General Plan includes goals, policies, and implementation measures that guide the growth and development of the County over a 20-year planning period. The General Plan addresses land use, transportation/circulation, public services, open space/conservation, agriculture and timber, safety, noise, and housing. The Tehama County Code of Ordinances implements the County's General Plan. The purpose of the Zoning Code (Title 17) is to guide future growth of the County in accordance with the General Plan and to protect the character and the social and economic stability of agricultural, residential, commercial, industrial, recreational, and other land uses in the County, and to assure the orderly and beneficial development of such areas.

DISCUSSION OF IMPACTS

Question A

Land use impacts are considered significant if a proposed project would physically divide an existing community (a physical change that interrupts the cohesiveness of the neighborhood). The proposed project does not include any components that would create a barrier for existing or planned development; therefore, there would be no impact.

Question B

As discussed in each resource section of this Initial Study, the proposed project is consistent with applicable Policies and Objectives of the Tehama County General Plan and regulations of the regulatory agencies identified in Section 1.8 of this Initial Study. Where necessary, mitigation measures are included to reduce impacts to less than significant levels. Therefore, with implementation of the mitigation measures identified in Section 1.10, the proposed project would not conflict with any plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, and impacts would be less than significant. No additional mitigation measures are necessary.

CUMULATIVE IMPACTS

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

MITIGATION

No additional mitigation is necessary.

DOCUMENTATION

Tehama County. 2020. Tehama County Code of Ordinances. https://library.municode.com/ca/tehama_county/codes/code_of_ordinances. Accessed October 2021.

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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 or local regulations pertaining to mineral resources that apply to the project.

STATE

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act (SMARA), Chapter 9, Division 2 of the Public Resources Code (PRC), provides a comprehensive surface mining and reclamation policy to ensure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. Mineral Resource Zones (MRZs) are applied to sites determined by the California 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.

DISCUSSION OF IMPACTS

Questions A and B

A mineral resource is land on which known deposits of commercially viable mineral or aggregate deposits exist. According to the County's General Plan, the majority of the County's mineral wealth is derived from the extraction of non-metallic sand, gravel, and volcanic cinder, which are used primarily by local paving and construction industries. Other mineral resources found in the County include aragonite, borax, chalcopyrite, chromite, copper, cristobalite, galena, garnet, opal, pectolite, penninite, sassolite, and Wallstonite.

According to CGS, the nearest active mine to the project area is about six miles to the west (CGS, 2021). According to the CGS Report *Mineral Land Classification of Concrete-Grade Aggregate Resources in Tehama County, California* (CGS, 2001), areas in eastern Tehama County are designated Mineral Resource Zone (MRZ) 3a-CS, indicating areas that may contain crushed stone of undetermined mineral resource significance.

Because there are no active mining operations in the project area, there are no potential mineral resources known to be significant in the area, and the project site and adjacent areas are not designated or zoned by the County for mineral extraction activities, the project would have no impact on mineral resources.

CUMULATIVE IMPACTS

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

MITIGATION

None necessary.

DOCUMENTATION

California Department of Conservation, Division of Mine Reclamation. 2021. Mines Online Maps. https://maps.conservation.ca.gov/mol/index.html. Accessed September 2021.

_____. 2001. Mineral Land Classification of Concrete-Grade Aggregate Resources in Tehama County, California. https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc. Accessed October 2021.

Tehama County. 2021. Tehama County Regional Viewer. https://planningsites.org/TehamaMaps/. Accessed September 2021.

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

FEDERAL

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

Tehama County

The County's General Plan includes the following Goal, Policy, and Implementation Measures (IMs) that apply to the proposed project:

Noise Element		
Goal	N-2	Develop strategies for abating excessive noise exposure through cost-effective mitigation measures in combination with appropriate zoning to avoid incompatible land uses.
Policy	N-2.4	The County shall restrict construction activities to the hours as determined in the Countywide Noise Control Ordinance, if such an Ordinance is adopted. *Note: As of November 1, 2021, the County has not adopted a Noise Control Ordinance.*
IMs	LU-2.4a	Restrict construction activities to the hours as determined by the County's Noise Control Ordinance unless an exemption is received from the County to cover special circumstances. Special circumstances may include emergency operations, short-duration construction, etc.
	LU-2.4b	Require all internal combustion engines that are used in conjunction with construction activities be muffled according to the equipment manufacturer's requirements.

NOISE FUNDAMENTALS

Commonly used technical acoustical terms are defined as follows:

Acoustics The science of sound.

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

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

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

Leq Energy-Equivalent Level. Leq measures individual noises for a period of time (typically for one hour) and determines the average noise level.

DISCUSSION OF IMPACTS

Question A

Some individuals and groups of people are considered more sensitive to noise than others and are more likely to be affected by the existence of noise. A sensitive receptor is defined as 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, hospitals, and long-term care facilities.

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).

Operational Noise

The booster pump station would operate more frequently to pump water to the Canyon View Loop water tank; however, the pump would be inside a concrete block building and would not be audible outside the building, provided that the door was closed. The only project component that has a potential for significant operational noise impacts is the new 100 kW emergency backup generator at the Ponderosa Way water tank site. The nearest sensitive receptor to the proposed location of the generator is a single-family residence ±80 feet to the northeast on the north side of Ponderosa Way.

The County's noise standards establish a maximum allowable noise level of 50 dB Leq in outdoor activity areas during the day (7:00 AM to 10:00 PM) and 45 dB Leq at night (10:00 PM to 7:00 AM). For single-family residences, the outdoor activity area is the backyard of the residence. The maximum interior noise level is 35 dB Leq for both daytime and nighttime hours.

The decibel level for a 100-kW diesel generator is estimated at ±70 dBA at 50 feet, depending on the model and manufacturer. At the nearest residence, noise levels could reach ±66 dBA at the exterior of the residence if no noise barrier was present.

The generator would be installed behind the booster pump station, and the pump station would serve as a barrier by completely blocking the line of sight between the generator and the residence. It is estimated that noise attenuation provided by the concrete block pump station would be ±25 dBA (FHWA, 2017). Noise levels at the exterior of the residence would be ±41 dBA.

Assuming typical California construction methods, interior noise levels are about 10 to 15 dBA lower than exterior levels within residential units with the windows partially open, and approximately 20 to 25 decibels lower than exterior noise levels with the windows closed. The interior noise level at the residence is not expected to exceed ±31 dBA with the windows open and ±21 dBA with the windows closed.

Therefore, the proposed project would not exceed the County's noise standards; operational noise would be less than significant.

Construction Noise

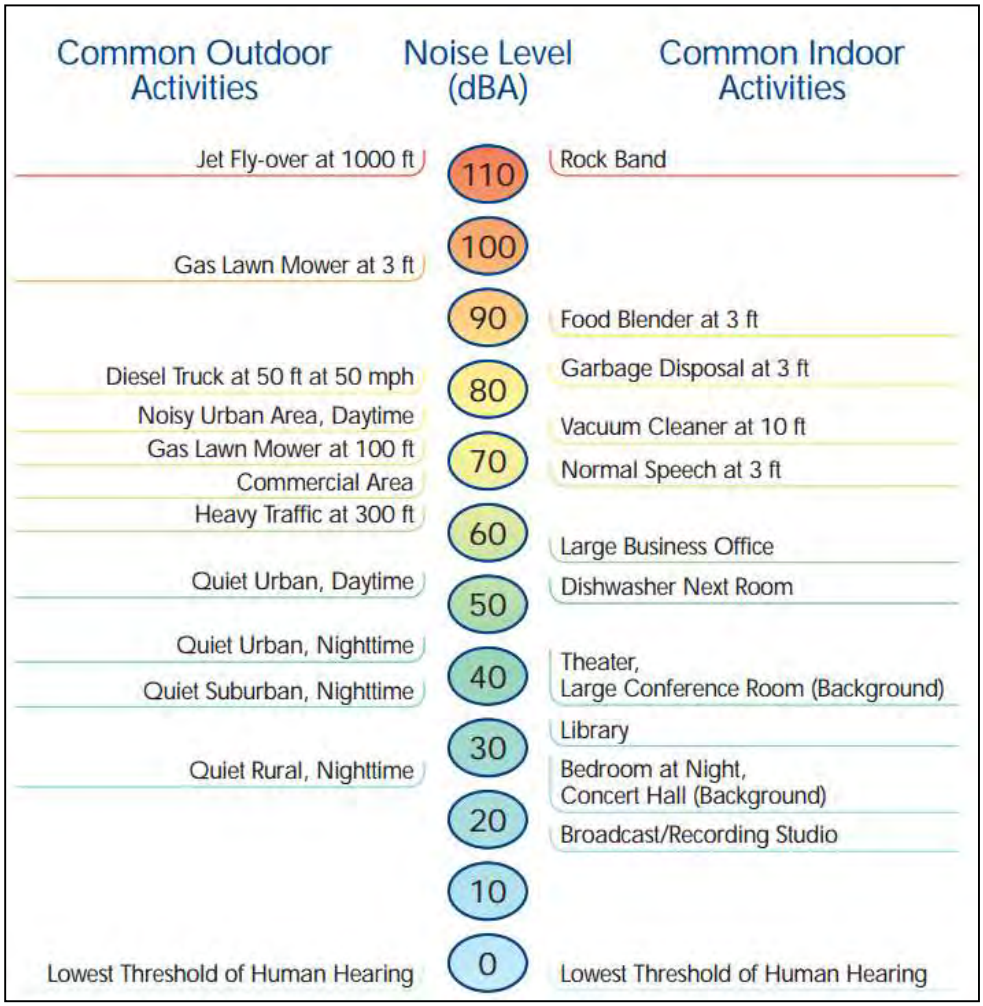
Construction activities associated with the project would temporarily increase noise levels at nearby single-family residences. Both the Canyon View Loop tank site and the well site are over a quarter-mile from any residences; therefore, improvements at these locations would not affect sensitive receptors in the study area.

Construction would occur as close as 25 feet from residences on Navion Road, Ponderosa Way, Vanguard Avenue, Snark Lane, Jupiter Avenue, Cessna Avenue, Summit Road, Ruth Lane, Piney Lane, and Explorer Road; and, 30 feet from single-family residences on Canyon View Loop. In addition, relocation of some water meters and water service lines would occur on private property with the property owner's consent. Work at the Ponderosa Way water tank site would occur ±50 feet south of a residence to the north.

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

Noise impacts resulting from construction activities would depend on: 1) the noise generated by various pieces of construction equipment; 2) the timing and duration of noise-generating activities; 3) the distance between construction noise sources and noise-sensitive receptors; and 4) existing ambient noise levels. **Figure 4.13-1** shows noise levels of common activities to enable the reader to compare construction-noise with common activities. Noise levels from construction-related activities would fluctuate, depending on the number and type of construction equipment operating at any given time. As shown in **Table 4.13-1**, construction equipment anticipated to be used for project construction typically generates maximum noise levels ranging from 74 to 89 decibels (dBA) at a distance of 50 feet.

Figure 4.13-1
Noise Levels of Common Activities



Source: Caltrans, 2016.

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

TABLE 4.13-1
Examples of Construction Equipment
Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source
Dozer	85
Excavator	85
Grader	85
Loader	85
Jack Hammer	88
Truck	88
Paver	89
Scraper	89

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

Noise from construction activities generally attenuates at a rate of 6 dBA per doubling of distance, assuming the intervening ground is a smooth surface without much vegetation. 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, most of the improvements would occur between 25 and 50 feet from residences. At 50 feet, noise levels would be as shown in Table 4.13-1. At a distance of 25 feet, 74 to 89 dBA noise levels would increase to 80 to 95 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.

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 dB.

TABLE 4.13-2
Cumulative Noise: Identical Sources

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

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

In addition, as shown in **Table 4.13-3**, the sum of two sounds of a different level is only slightly higher than the louder level. For example, if the sound level from one source is 80 dB, and the sound level from the second source is 85 dB, the level from both sources together would be 86 dB; if the sound level from one source is 80, and the sound level from the second source is 89 dB, the level from both sources together would be 89.5.

TABLE 4.13-3
Cumulative Noise: Different Sources

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

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

With two pieces of equipment with a noise level of 95 dBA operating simultaneously within 25 feet of a sensitive receptor, noise levels could reach approximately 98 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 10 to 15 dBA lower than exterior levels within residential units with the windows partially open, and approximately 20 to 25 decibels lower than exterior noise levels with the windows closed. Interior noise levels could reach 73 to 78 dBA when equipment operates within 25 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)) require a reverse signal alarm to be used when a motor vehicle, earthmoving, or compacting equipment has an obstructed view to the rear unless the vehicle is backed up only when an observer signals that it is safe to do so. Although these regulations require an alarm to be only at a level that is distinguishable from the surrounding noise level (±5 dB), some construction vehicles are pre-equipped with non-adjustable alarms that range from 97 to 112 dBA. At a distance of 25 feet, 97 to 112 dBA noise levels would increase to 103 to 118 dBA; such noise levels could temporarily be experienced at the exteriors of some of the single-family residences. Depending on the decibel level of the alarm, interior noise levels could reach 95 to 98 dBA, provided that the windows were closed.

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

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

In the worst-case scenario, interior noise levels from construction equipment operation could reach approximately 78 dBA, and could reach approximately 98 dBA if reverse signal alarms are used. However, construction equipment does not operate continuously throughout the entire work day. 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.

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

Therefore, because the proposed project does not include any components that would result in a permanent increase in ambient noise levels; there is no expectation that noise levels during construction would be at a duration and intensity that would cause hearing loss; and **MM 4.13.1** through **MM 4.13.3** minimize noise during construction, impacts would be less than significant. Further, construction noise is a temporary impact that would cease at completion of the project.

Question B

The project does not have any components that would result in a permanent increase in groundborne vibration or groundborne noise. Excessive vibration during construction occurs only when high vibration equipment (e.g., compactors, large dozers, etc.) are operated. The proposed project may require limited use of equipment with high vibration levels during construction. Potential effects of ground-borne vibration include perceptible movement of building floors, rattling windows, shaking of items on shelves or hangings on walls, and rumbling sounds. In extreme cases, vibration can cause damage to buildings. Both human and structural responses to ground-borne vibration are influenced by various factors, including ground surface, distance between the source and the receptor, and duration.

The most common measure used to quantify vibration amplitude is the peak particle velocity (PPV). PPV is a measurement of ground vibration defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. Although there are no federal, state, or local regulations for ground-borne vibration, Caltrans has developed criteria for evaluating vibration impacts, both for potential structural damage and for human annoyance. The Caltrans Transportation and Construction Vibration Guidance Manual (2020), was referenced in the analysis of construction-related vibration impacts.

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

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

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

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

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

TABLE 4.13-5
Human Response to Ground-Borne Vibration

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

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

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

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

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

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

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

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

In this equation, PPV_{Ref} = reference PPV at 25 feet, D = distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through ground).

In the worst-case scenario, a vibratory roller would generate a PPV of 0.21 inches per second at the nearest sensitive receptor. As shown in **Table 4.13-4**, vibration levels would not be at a level that would cause structural damage. As shown in **Table 4.13-5**, vibration levels would be strongly perceptible but would not rise to a level that would be considered disturbing. Because increased ground-borne vibration is temporary and would cease at completion of the project, impacts would be less than significant.

Question C

See discussion in Section 4.9 under Question E. The project is not located in an airport land use plan area or within two miles of a public airport or public use airport. According to FAA records from 2013, the Ponderosa Sky Ranch Airport (52CN) was previously registered as a private use airport as early as 1960 (Airport-Data.com, 2013). USGS and Tehama County Assessor's maps show this as a private landing strip northeast of the Ponderosa Way water tank site. However, according to current FAA records, this landing strip is not operational, and its prior use is unknown. The FAA does not identify any other private airstrips in the project area. 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, the project would not result in a permanent increase in noise or groundborne vibration levels. A temporary increase in daytime noise levels would occur during construction activities; however, with implementation of **Mitigation Measures MM 4.13.1 through MM 4.13.3**, the proposed project's contribution to cumulative noise impacts would be less than significant.

MITIGATION

MM 4.13.1 Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the daytime hours of 7:00 A.M. and 7:00 P.M., Monday through Saturday. Construction activities shall be prohibited on Sundays and federal/state recognized holidays. Exceptions to these limitations may be approved by the Sky View County Water District General Manager or his/her designee for activities that require interruption of utility services to allow work during low demand periods, or to alleviate traffic congestion and safety hazards.

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

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

DOCUMENTATION

Airport-Data.com. 2013. Ponderosa Sky Ranch Airport (52CN) FAA Information. https://www.airport-data.com/airport/52CN/. Accessed October 2021.

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U.S. Government Publishing Office. 2013. California Code of Regulations, Title 29, Part 1926 (Safety and Health Regulations for Construction). https://www.gpo.gov/fdsys/pkg/CFR-2013-title29-vol8/pdf/CFR-2013-title29-vol8-part1926.pdf. Accessed September 2021.

4.14 POPULATION AND HOUSING

Would the project:

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

REGULATORY CONTEXT

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

LOCAL

Tehama County

The County's General Plan includes policies for the East County Planning Area, which includes the unincorporated communities of Manton, Mineral, Paynes Creek, and Ponderosa Sky Ranch. The following implementation measures address the project area:

Land Use Element		
IM	EI-5.1	The development pattern shall accommodate growth primarily within the rural community centers of Manton and Mineral and within and/or adjacent to the subdivisions of Ponderosa Sky Ranch and the Paynes Creek areas along HWY 36E.
	EI-5.2	The development pattern shall recognize the limitations on the use of on-site wastewater treatment systems and available potable water supply.

DISCUSSION OF IMPACTS

Question A

Because the proposed project does not involve construction of residences or businesses, the project would not directly induce population growth. As stated in Section 4.3 (Air Quality) under Questions A and B, although it is likely that the 2007 moratorium would be lifted following completion of the project, future growth is restricted to parcels within the water service boundary. There are 118 parcels within the District that are not currently connected to the water system. However, the growth rate is not expected to exceed the County's projected growth rate of 1.48 percent annually and it is

unlikely that all 118 parcels would connect to the water system over the 20-year General Plan planning period. Further, the project does not include a general plan amendment or rezone that would change anticipated development patterns in the area. Therefore, the project would not directly or indirectly induce unplanned population growth; there would be no impact.

Question B

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

CUMULATIVE IMPACTS

Cumulative growth in the area has been addressed in the County's General Plan. Because the proposed project does not involve construction of residences or businesses, it would not directly increase growth beyond that projected in the General Plan. The project could potentially indirectly foster development of vacant properties served by the District's water distribution system. However, development would occur in accordance with the existing General Plan. Therefore, the project's cumulative impacts on population and housing would be less than significant.

MITIGATION

None necessary

DOCUMENTATION

Tehama County. 2009. Tehama County General Plan. https://tehamartpa.org/wp-content/uploads/2020/06/2009-2029-Tehama-County-General-Plan-r1.pdf. Accessed September 2021.

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 or State regulations pertaining to public services that apply to the proposed project.

LOCAL

Tehama County

The County's General Plan includes the following Goal, Policy, and Implementation Measure (IM) that apply to the proposed project:

Public Services Element		
Goal	PS-3	To ensure the development of quality infrastructure to meet a community's needs at the time they are needed.
Policy	PS-3.1	The County shall ensure the development of public infrastructure to meet the long-term needs of residents and ensure infrastructure is available at the time such facilities are needed.
IM	PS-3.1	Require sufficient capacity in all public facilities to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.

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

Tehama County. 2009. Tehama County General Plan. https://tehamartpa.org/wp-content/uploads/2020/06/2009-2029-Tehama-County-General-Plan-r1.pdf. Accessed September 2021.

4.16 RECREATION

Would the project:

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

REGULATORY CONTEXT

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

DISCUSSION OF IMPACTS

Questions A and B

As stated in Section 4.14 (Population and Housing) under Question A, the project would not directly or indirectly induce significant population growth in the area; therefore, the project would not result in an increased use of existing recreational facilities or require the construction or expansion of recreational facilities. There would be no impact.

CUMULATIVE IMPACTS

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

MITIGATION

None necessary

DOCUMENTATION

Tehama County. 2009. Tehama County General Plan. https://tehamartpa.org/wp-content/uploads/2020/06/2009-2029-Tehama-County-General-Plan-r1.pdf. Accessed September 2021.

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

California Streets and Highways Code

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

CEQA Guidelines

SB 743 of 2013 (CEQA Guidelines §15064.3 *et seq.*) was enacted as a means to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHGs. Pursuant to SB 743, traffic congestion is no longer considered a significant impact on the environment under CEQA. The new metric bases the traffic impact analysis on vehicle-miles travelled (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 through C

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

Question D

As discussed in Section 4.9 under Question F, there would be short-term increases in traffic in the area associated with construction workers and equipment, and this increased traffic could interfere with emergency response times. However, temporary traffic control is required and must adhere to the California Manual on Uniform Traffic Control Devices (California MUTCD). Driveway access to private properties must be maintained at all times. Because safety measures would be employed to safeguard travel by the general public and emergency response vehicles during construction, impacts would be less than significant.

CUMULATIVE IMPACTS

The proposed project would not result in a permanent increase in VMT and would not conflict with programs, plans, ordinances, or policies addressing the circulation system. Further, the project would not permanently increase hazards due to design features or incompatible uses.

There would be a temporary increase in traffic associated with construction workers and equipment during construction. However, no concurrent construction activities near the roadway network are anticipated. Temporary traffic control for all projects 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 MUTCD. In addition, construction traffic is a temporary impact that would cease at completion of the project; therefore, the project's transportation-related impacts would not be cumulatively considerable.

MITIGATION

None necessary.

DOCUMENTATION

California Department of Transportation. 2020. California Manual on Uniform Traffic Control Devices. https://dot.ca.gov/programs/safety-programs/camutcd. Accessed September 2021.

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4.18 TRIBAL CULTURAL RESOURCES

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

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

REGULATORY CONTEXT

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

STATE

California Environmental Quality Act

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

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

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

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

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

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

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

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).

LOCAL

Tehama County

The County's General Plan includes the following Goal, Policy, and Implementation Measure (IM) that apply to the proposed project:

Open Space and Conservation Element		
Goal	OS-10	To preserve the historic and archaeological resources of the County for their scientific, education, aesthetic, recreational, and cultural values.
Policy	OS-10.4	The County shall encourage and support inter-agency cooperation to protect historic, archaeological, and cultural resources.
IM	OS-10.4	Consult with local, State, and federal agencies as well as local Native American communities in cases where new development may result in disturbance to historic, archaeological, and/or cultural resources.

DISCUSSION OF IMPACTS

Questions A and B

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

On June 22, 2021, a comment solicitation letter was sent to Jack Potter, Chairperson of the Redding Rancheria, on June 22, 2021, with a request to provide comments on the proposed project. Follow-up correspondence was sent to Mr. Potter in July 2021, and a telephone call was placed. No comments were submitted by Mr. Potter or any other representatives from the Redding Rancheria. **Mitigation Measures MM 4.5.1 and 4.5.2** address the inadvertent discovery of cultural resources and human remains. These measures ensure that impacts on tribal cultural resources are less than significant.

CUMULATIVE IMPACTS

Cumulative projects in the vicinity of the project area have the potential to impact tribal cultural resources. Tribal cultural resources are afforded special legal protections designed to reduce the cumulative effects of development. Potential cumulative projects and the proposed project would be subject to the protection of tribal cultural resources afforded by PRC §21084.3. Given the non-renewable nature of tribal cultural resources, any impact to tribal cultural sites, features, places, landscapes, or objects could be considered cumulatively considerable. As discussed above, no cultural resources of significance to a California Native American tribe were identified within the project area. In addition, the proposed project will not adversely impact tribal cultural resources with implementation of **MM 4.5.1 and MM 4.5.2.** Therefore, the proposed project would have less than significant cumulative impacts to tribal cultural resources.

MITIGATION

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

DOCUMENTATION

ENPLAN. 2021. Cultural Resources Inventory Report: Sky View County Water District, Tehama County, California. Confidential document on file at NEIC/CHRIS.

4.19 UTILITIES AND SERVICE SYSTEMS

Would the project:

Issues and Supporting Evidence	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒

c.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
d.	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

REGULATORY CONTEXT

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

STATE

California Integrated Waste Management Act

The California Integrated Waste Management Act (CIWMA) of 1989, as amended, was enacted to reduce, recycle, and reuse solid waste generated in the State. The CIWMA requires cities and counties to divert 50 percent of the total waste stream from landfill disposal. Under the CIWMA, cities and counties must prepare Solid Waste Management Plans and Source Reduction and Recycling Elements to implement CIWMA goals.

California Building Standards Code

The CALGreen Code, included as Part 11 of the CBSC, includes requirements for construction waste reduction, disposal, and recycling. The intent of this requirement is to reduce the amount of waste from new construction and demolition that would be sent to landfills, and to encourage reuse and recycling of construction waste products (e.g., carpet, wood, aggregate, shingles, wallboard, and other materials that have recyclable value).

DISCUSSION OF IMPACTS

Question A

As discussed in Section 4.14 under Question A, it is not anticipated that the project would significantly influence development in the District's service area. 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 water, wastewater treatment, electric power, natural gas, or telecommunication facilities. Additionally, other than the overhead communications line on the Ponderosa Way water tank site that would be relocated around the tank as described in Section 3.2, no sewer, electric power, natural gas, or telecommunications facilities would need to be relocated to accommodate the proposed project. Impacts would be less than significant.

Questions B and C

Relatively small amounts of water would be used during project construction, but this is a temporary impact. As discussed in Section 4.14 under Question A, the proposed project would not induce population growth either directly or indirectly that would require additional long-term water supplies. Properties in the District are served with onsite wastewater treatment systems, and there are no plans to install a public wastewater system. Therefore, there would be no impact.

Questions D and E

The proposed project would not result in a long-term demand for additional solid waste disposal services. Solid waste would be generated during construction, mainly from removal of pavement in public road ROWs and demolition of the existing water tanks, well building, and booster pump station. Construction debris would be disposed of at the Tehama County/Red Bluff Landfill or at another facility licensed to accept construction waste. The Tehama County/Red Bluff Landfill is permitted through the California Integrated Waste Management Board (CIWMB). The landfill is subject to periodic inspections by Tehama County Sanitary Landfill Agency to ensure compliance with the CIWMB. The Tehama County/Red Bluff Landfill has a projected operational life to 2046.

As discussed in Section 4.3 (Air Quality) under Question C, **MM 4.3.2** requires that materials containing asbestos and/or lead must be disposed of at a facility that is specifically licensed to accept asbestos and/or lead. As discussed in Section 4.9 (Hazards and Hazardous Materials), Treated Wood Waste (TWW) must also be disposed of at a facility licensed to accept TWW. Further, as stated under Regulatory Context, the CALGreen Code includes requirements for reuse and recycling of construction waste products to reduce the amount of waste that would be sent to landfills. The construction contractor would be responsible for disposing of all construction waste. The District would ensure through contractual obligations that the contractor complies with all federal, State, and local statutes related to solid waste disposal. Therefore, there would be no impact.

CUMULATIVE IMPACTS

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

MITIGATION

None necessary

DOCUMENTATION

CalRecycle. 2021. SWIS Facility/Site Activity Details - Tehama County/Red Bluff Landfill. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/754?siteID=3778. Accessed September 2021.

Tehama County. 2009. Tehama County General Plan. https://tehamartpa.org/wp-content/uploads/2020/06/2009-2029-Tehama-County-General-Plan-r1.pdf. Accessed September 2021.

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

FEDERAL

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

STATE

California Department of Forestry and Fire Protection (CAL FIRE)

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

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

California Fire Code

California Fire Code, Part 9, Chapter 49 (Wildland-Urban Interface Fire Areas), and California Building Code 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

Tehama County

The County's General Plan includes the following Goal, Policies, and Implementation Measure (IM) that apply to the proposed project:

Safety Element		
Goal	SAF-3	To protect the people and property within Tehama County against fire-related loss and damage.
Policies	SAF-3.1	The County shall require accepted fire-resistive construction practices, including but not limited to site design and layout; use of appropriate landscaping and building materials; and the installation of automatic fire sprinklers on new and redevelopment projects to the extent permitted by law

	SAF-3.2	The County shall require new developments in State Responsibility Areas and other fire prone areas to mitigate all hazards to acceptable levels.
IM	SAF-3.2a	Review development proposals to determine if new development projects are located in State Responsibility Areas or fire prone areas. If development is permitted in these areas, ensure that mitigation measures are required that ensure the health and safety of Tehama County citizens.

DISCUSSION OF IMPACTS

According to FHSZ maps prepared by CAL FIRE, the project area is located within a Very High FHSZ in a State Responsibility Area.

Question A

See discussion in Section 4.9 under Question F. The proposed project does not involve a use or activity that could interfere with long-term emergency response or emergency evacuation plans for the area. Although a temporary increase in traffic would 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 public road ROW is 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 fire flows and the ability to provide fire suppression in the area. In addition, the existing overhead powerline between the well site and the Ponderosa Way tank site would be replaced with an underground line in electrical conduit, which would reduce fire risks associated with the electric service.

The project area is sparsely developed and dense vegetation exists throughout the entirety of the study area. In addition, the transmission main corridor between the well site and the Ponderosa Way water tank site is on a steep hillside with an average slope of 40 percent, and in some areas reaching 50 to 55 percent. During a fire, steeper slopes typically facilitate more rapid fire-spread upslope and slower spread downslope. The project site is situated such that the control of a fire originating in the vicinity may be challenging due to steep slopes, fire-prone vegetation, dry weather, high wind, or any combination of these conditions.

As stated in Section 4.9 under Question G, the project is located within a VHFSZ, 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

While water lines, water meters, and water service improvements would be subsurface and not be exposed to significant post-fire risks, fire hydrants, water tanks, the well house, the pump station, and the access stairway would be installed above ground.

Fire hydrants, the water tanks, and the pump station would be installed in areas with relatively level land with low potential for post-fire flooding or landslides. Both the access stairway and the new well house would be located in an area flanked by steep slopes. As discussed in Section 4.7 (Geology and Soils), the KC Engineering Geotechnical Report includes recommendations for footings for the access stairway and states that the footings would be founded in the underlying bedrock, which would minimize the risk of damage should a landslide occur.

As stated in Section 4.10 (Hydrology and Water Quality) under Question C, there are no documented reports of flooding at the well house; and it is not anticipated that the stairway would be exposed to flood flows. In addition, the final drainage plan for the project will be designed by a civil engineer to ensure that the project does not increase the rate of surface runoff in a manner that results in erosion or siltation, an increase in polluted runoff, or flooding on- or off-site.

Furthermore, the project site and surrounding areas have not been subject to recent wildfire burns such that improvements in downslope areas would be affected. Therefore, the proposed project would not increase the exposure of people or structures to significant risks related to downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes; impacts would be less than significant.

CUMULATIVE IMPACTS

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 to increased risks of wildfire, effects of fire prevention/suppression infrastructure, or post-fire hazards. Although cumulative wildfire risks could occur during construction, compliance with existing regulations adequately minimizes such risks.

MITIGATION

None necessary.

DOCUMENTATION

California Department of Forestry and Fire Protection (CAL FIRE). 2021. Fire Hazard Severity Zone Map Viewer. https://egis.fire.ca.gov/FHSZ/. Accessed September 2021.

Tehama County. 2009. Tehama County General Plan. https://tehamartpa.org/wp-content/uploads/2020/06/2009-2029-Tehama-County-General-Plan-r1.pdf. Accessed September 2021.

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 Section 4.4, the proposed project could result in possible impacts on special-status wildlife species and riparian habitat, disturbance of nesting birds (if present), the introduction and spread of noxious weeds during construction, possible impacts on wetlands and/or other waters of the U.S./State, and impacts on cultural resources due to inadvertent discover during construction. However, as identified in Section 4.4 (Biological Resources) and Section 4.5 (Cultural Resources), mitigation measures are included to reduce all potential impacts to a less-than-significant level.

Question B

The potential cumulative impacts of the proposed project have been analyzed within the discussion of each environmental resource section above. 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 above, the proposed project could result in adverse effects on human beings due to temporarily increased risk of wildfires, temporarily increased air emissions, and temporarily increased noise levels. However, mitigation measures are included to reduce all potential impacts to a less than significant level.

SECTION 5.0 LIST OF PREPARERS

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SECTION 6.0 ABBREVIATIONS AND ACRONYMNS

AB	Assembly Bill
AQAP	Air Quality Attainment Plan
APCD	Air Pollution Control District
APE	Area of Potential Effects
BIOS	Biogeographic Information and Observation System
BMP	Best Management Practice
BSR	Biological Study Report
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	Criteria Air Pollutants
CARB	California Air Resources Board
CASGEM	California Statewide Groundwater Elevation Monitoring
CBSC	California Building Standards Code
CCR	California Code of Regulations
CCV	California Central Valley
CDBG	Community Development Block Grant
CDFW	California Department of Fish and Wildlife
CDSH	California Division of Safety and Health
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	Methane
CIWMA	California Integrated Waste Management Act
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
County	Tehama County
CRHR	California Register of Historical Resources
CRI	Cultural Resources Inventory and Evaluation Report
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
CY	Cubic Yards

dBA	Decibels
DOC	Department of Conservation
DPS	Distinct Population Segment
DTSC	California Department of Toxic Substances Control
DWSRF	Drinking Water State Revolving Fund
EHS	Extremely Hazardous Substance
EO	Executive Order
ESU	Evolutionary Significant Unit
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Act
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
GHG	Greenhouse Gas Emissions
GSPs	Groundwater Sustainability Plans
GWP	Global Warming Potential
H_2S	Hydrogen Sulfide
HCD	California Department of Housing and Community Development
HCP	Habitat Conservation Plan
HFC	Hydrofluorocarbons
HUD	U.S. Department of Housing and Urban Development
IBC	International Building Code
IS	Initial Study
LRA	Local Responsibility Area
MACT	Maximum Achievable Control Technology
MBTA	Migratory Bird Treaty Act
MCL	Maximum Contaminant Level
mg/m^3	Milligrams per Cubic Meter
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MS4s	Small Municipal Separate Storm Sewer Systems
MSR	Municipal Service Review
MUTCD	California Manual on Uniform Traffic Control Devices
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan

NEIC/CHRIS	Northeast Information Center of the California Historical Resources Information System
NEHRA	National Earthquake Hazards Reduction Act
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NF_3	Nitrogen Trifluoride
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
N_2	Nitrogen
N_2O	Nitrous Oxide
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_X	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NPPA	California Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSVPA	Northern Sacramento Valley Planning Area
NWI	National Wetlands Inventory
NWP	Nationwide Permit
O_2	Oxygen
O_3	Ozone
OHWM	Ordinary High-Water Mark
OSHA	Occupational Safety and Health Act
Pb	Lead
PF	Public Facilities
PFC	Perfluorocarbons
$PM_{2.5}$	Particulate Matter, 2.5 microns in size
PM_{10}	Particulate Matter, 10 microns in size
PPB	Parts per Billion
PPM	Parts per Million
PRC	Public Resources Code
Project	Sky View County Water District Water System Improvements Project
PVC	Polyvinyl Chloride
RCRA	Resource Conservation and Recovery Act
RMP	Risk Management Plan
ROG	Reactive Organic Gases
ROW	Right of Way
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement

SB	Senate Bill
SCS	Sustainable Communities Strategy
SDWA	Safe Drinking Water Act
SF_6	Sulfur Hexafluoride
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Officer
SMM	Standard Mitigation Measures
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act
SOI	Sphere of Influence
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Sulfur Oxides
SRA	State Responsibility Area
SRWR	Sacramento River Winter-Run
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SVAB	Sacramento Valley Air Basin
SVAQEEP	Sacramento Valley Air Quality Engineering and Enforcement Professionals
TAC	Toxic Air Contaminants
TCAPCD	Tehama County Air Pollution Control District
TPZ	Timberland Production Zone
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Travelled
WDRs	Waste Discharge Requirements
WQO	Water Quality Objectives
$\mu g/m^3$	Micrograms per Cubic Meter

Appendix A

CalEEMod.2020.4.0 Emissions Reports

Appendix B

Biological Study Report
Sky View County Water District Water System Improvements

Appendix C

Map Exhibits
Wetlands and Other Waters of the U.S./State