City of Angels Water Treatment Plant Upgrade

Draft Initial Study / Mitigated Negative Declaration

November 2020

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1.0 Contents

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Abbreviations and Acronyms

Abbreviations and Acronyms	
AB	Assembly Bill
AF	Acre-foot (1 AF = 325,851± gallons)
AFY	Acre Feet per Year
amsl	above mean sea level
APN	Assessor's Parcel Number
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGS	California Geological Survey
CITY	City of Angels (Angels Camp)
CFGC	California Fish and Game (Wildlife) Code
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Calaveras County
Corps	U.S. Army Corps of Engineers
CRHR	California Register of Historic Resources
CRLF	California Red-Legged Frog
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Federal Clean Water Act
DTSC	California Department of Toxic Substance Control
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Maps
GHG	Greenhouse Gas
gpm	Gallons per minute
HCP	Habitat Conservation Plan
HSC	California Health and Safety Code
MBTA	Migratory Bird Treaty Act
MDBM	Mount Diablo Base and Meridian

Abbreviations and Acronyms	
MDD	Maximum Daily Demand
MG	Million gallons
MGR	Murphys Grade Road
MM	Mitigation Measure
$MTCO_2e$	Metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NOA	Naturally Occurring Asbestos
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PRC	Public Resources Code
Project	City of Angels Water Treatment Plant
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SCC	Species of Special Concern
CCAPCD	Calaveras County Air Pollution Control District
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USFWS	United State Fish and Wildlife Service
USGS	United States Geological Survey
UWPA	Utica Water and Power Authority
WTP	City of Angels Water Treatment Plant

INITIAL STUDY

DATE: September 24, 2020

Owner/ Assessor's Parcel Numbers / General Plan / Zoning

Assessor's Parcel Number	Size (acres)	Owner	General Plan / Zoning (Calaveras County)
Water Treatment Plant			
057-011-002	2.68	Utica Power Authority	Resource Production / Unclassified
057-011-003	1.77	Utica Power Authority	Resource Production / Resource Production
057-011-015	0.66	City of Angels	Resource Production / Unclassified
Total	**5.11**		
Pipeline (Existing and Proposed)			
057-011-004 (portion)	/a/	Rolleri Richard Cowden & Carla J Trustee etal	Resource Production / Unclassified
057-011-005 (portion)	/a/	Rolleri Richard Cowden & Carla J Trustee etal	Resource Production / Resource Production/Highway Service
057-019-001 (portion)	/a/	Rolleri Richard Cowden & Carla J Trustee etal	Rural Residential / Unclassified/Highway Service
057-019-003 (portion)	/a/	Rolleri Richard Cowden & Carla J Trustee etal	Resource Production / Unclassified/Highway Service

/a/ Water transmission pipeline (existing)

1.0 PROJECT AND SETTING

1.1 PROJECT LOCATION

The proposed project is located in unincorporated Calaveras County north of the City of Angels (Angels Camp) at elevations ranging between 1,560± and 1,800± feet above mean sea level in the central Sierra Nevada foothills in a portion of Sections 22 and 27, T3N, R13E, MDB&M, Calaveras County, CA. Angels Camp USGS 7.5' Quadrangle (**Figure 1**).

Figure 1: Project Location

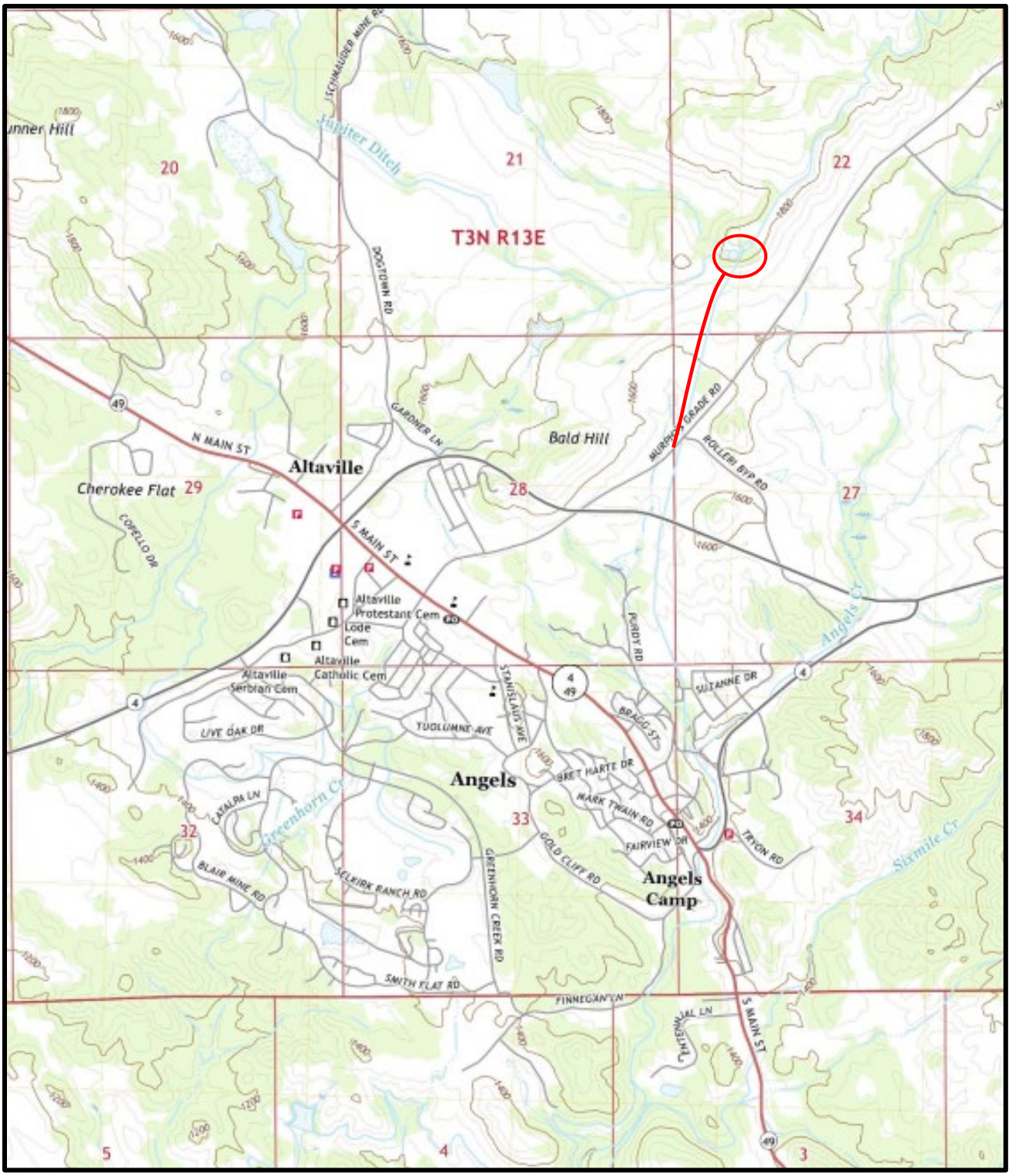
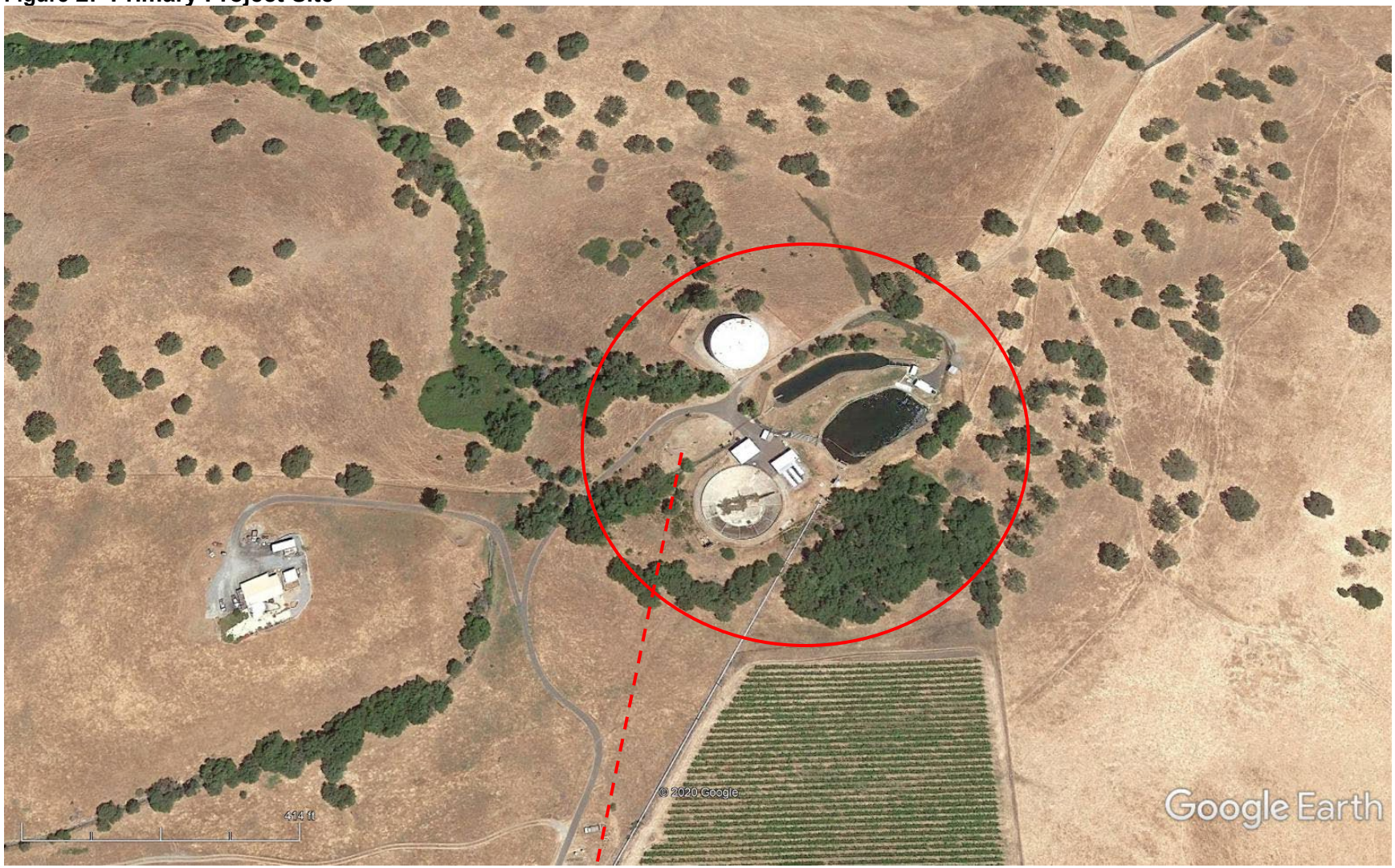


Figure 2: Primary Project Site



1.2 BACKGROUND

The City of Angels water supply is provided by surface water from the North Fork of the Stanislaus River and its multiple tributaries. Raw water enters the plant via the Angels Canal and is stored in Angels Forebay which is owned and controlled by Utica Water & Power Authority (UWPA) located at the Water Treatment Plant (WTP) located in the unincorporated County just north of the City Limits. The WTP was acquired by the City in 1984 from Pacific Gas & Electric (PG&E). The City has contractual rights for up to 3,600 acre-feet per year (AFY) of water through a series of agreements with UWPA[1]. Unused water discharges to Angels Creek just downstream of the Angels Powerhouse near Tryon Park in the City Limits. The WTP has a permitted capacity of 1,440 gallons per minute (gpm).

1.2.1 Pre-Filtering

Water treatment is accomplished using a conventional sand filtration system with sodium hypochlorite disinfection. Raw water is stored in the forebay where it is diverted to the WTP through a 12-inch control valve then is treated with the coagulant aluminum sulfate (alum) and a chlorine disinfectant. **Figure 3** summarizes the next steps in the Water Treatment process.

[1] Source: Agreement for Sale and Delivery of Water Between the Utica Water and Power Authority and the City of Angels Camp- March 31, 2014

Figure 3: Overview - Water Treatment (Mixing, Settling, "Pre-filtering")

Photo 1 - Angels Forebay

Photo 2 - Forebay Inlet to WTP Upper Plant

After alum has been injected, water is then conveyed into the mixing area of a flocculation pond/settling basin. A series of paddles slowly mix the water to allow contact time between the coagulant and particles in the water. The result of this interaction is the production of large particles called "floc" which can settle to the bottom of the basin.

Photo 3 - Headworks (inlet) pipe and flocculation basin

Photo 4 - Flocculation to sedimentation basin transition

As the water moves out of the flocculation area, it enters a sedimentation basin containing baffles which allow more time for the particles to settle to the bottom of this basin. After the water reaches the end of the sedimentation basin, most of the particles have settled to the bottom of the basin with the clarified water going on to the next step in the filtration process. Periodically the settled particles, known as sludge, are removed by draining and flushing the basin. This is a manual process.

Photo 5 - Sedimentation basin outlet

Photo 6 - Sedimentation basin - drained for cleaning

1.2.2 Disinfection and Filtering

Figure 4: Overview - Water Treatment (Disinfection and Filtration)

Water flows by gravity from the sedimentation basin to four pumps located in the filter control building. Pre-filtered water is disinfected using chlorine. The four pumps can be used separately or in combination to provide flow and pressure through three multi-media filtration vessels.

Photo 7 - Filter Building (L), clear well (background), chlorine building (R), inlet pipe to filters (foreground)

Each four-cell filter vessel has a capacity of 720 gpm. With one filter designated as a backup, the remaining two filters provide a total plant capacity of 1,440 gpm (2.0 MGD). The plant is producing filtered water when all three filters are performing at 66.7% of total capacity, or 480 gpm each. In the event a filter fails due to internal pipe breakage or vandalism, the two remaining filters can be operated at full capacity until the problem is corrected.

Photo 8 - Two of four filter pumps

Photo 9 - Two of three filter vessels

1.2.3 Backwashing

The filters are backwashed after filtering 6 million gallons (MG), approximately every two weeks during low demand (in generally, the rainy season) or every four days during high demand periods (i.e., hot and/or dry periods). User demand begins to taper off during the fall months reaching the lowest point in the winter. In the spring, demand starts to increase reaching the peak during summer. Historical backwash frequency is show in in the following table

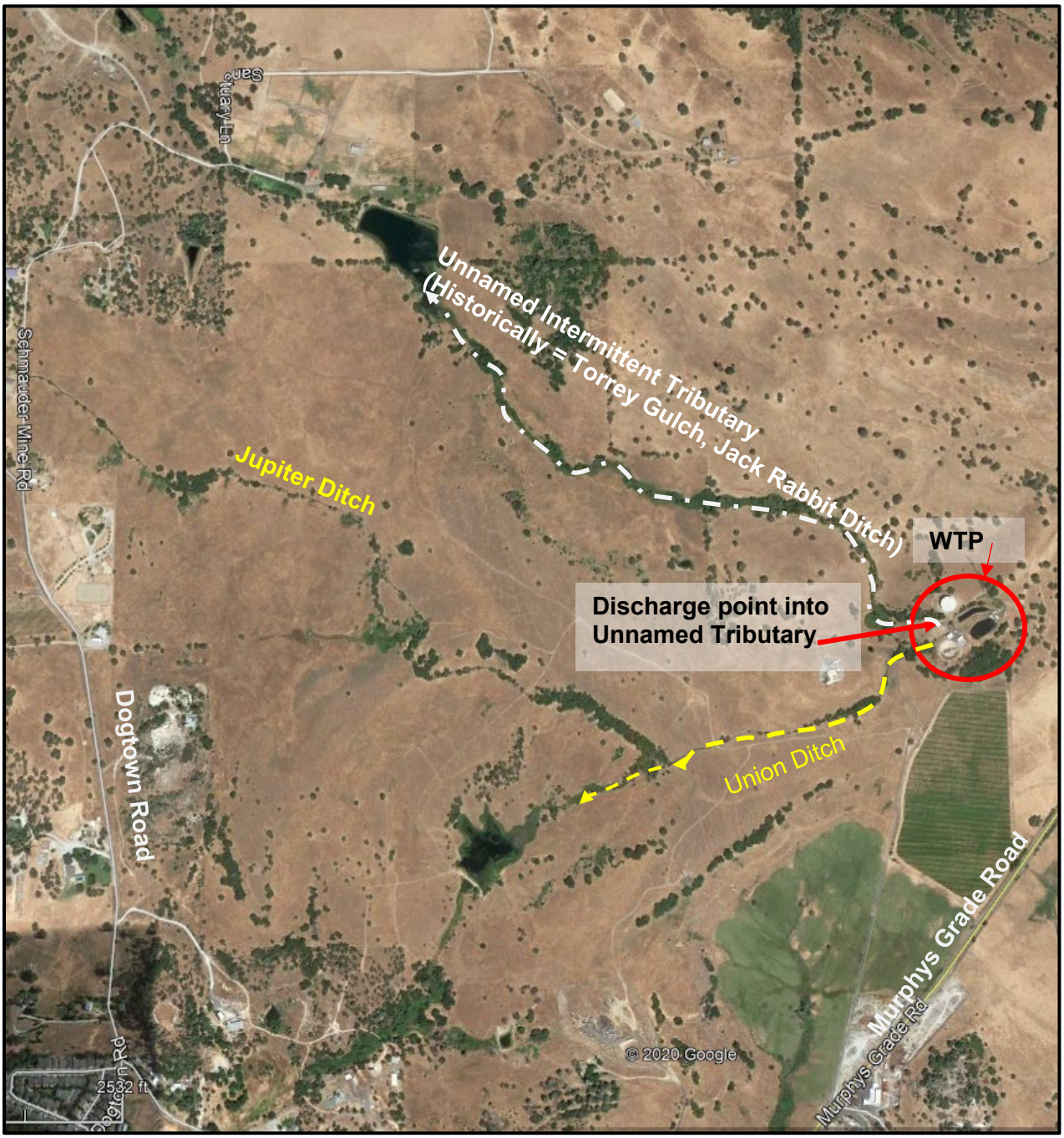
Table 1- Historical Backwash Events

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TTL
2013	1	3	3	4	5	7	8	8	7	6	4	3	59
2014	3	3	3	3	5	6	6	7	5	5	3	2	51
2015	3	2	3	5	4	4	5	5	5	4	2	2	44
2016	2	2	3	2	4	5	7	6	5	4	3	1	44
2017	2	2	2	2	4	5	8	7	7	3	4	2	48
Average	2.2	2.4	2.8	3.2	4.4	5.4	6.8	6.6	5.8	4.4	3.2	2	49.2
					PEAK MONTHS								

Filter backwash water and water from flocculation basin cleaning, sedimentation basin cleaning, and backwashing filters is discharged into an unnamed tributary (**Figure 5**).

The tributary also serves as an emergency spillway for UWPA for the Angels Forebay. Raw water is released into the unnamed tributary by UWPA when the hydroelectric plant in Angels Camp is taken off-line.

Figure 5: Unnamed Tributary (Backwash Discharge) and Upper Jupiter Ditch



1.2.4 Storage

Pipe corrosion control and pH adjustment is accomplished by injecting caustic soda (Sodium Hydroxide) and orthophosphate into the treated water before entering the 2.5-MG storage tank.

The finished water is stored in a 2.5-MG baffled tank (**Figure 6**) where it receives the required chlorine contact time and is held for distribution to the system. There are no additional storage tanks and therefore the City does not have the ability to store water outside of the WTP site.

Figure 6: 2.5 MG Storage Tank

1.2.5 Treated Water Transmission and Distribution System

Treated water from the storage tank is distributed to the City via gravity through a single 3,508-foot (ft) 14-inch transmission main.

The system serves 1,769 metered connections (approximately 85% residential). Pipelines range from 2- inch to 14-inch diameter. The distribution system features include fire hydrants (including wharf head style hydrants), air release valves (ARVs), blowoff valves, pressure relief valves (PRVs), and a surge valve.

The City of Angels Water Treatment Plant is listed by the California Water Boards as a community water system (CWS). The State Water Resources Control Board's (State Water Board) Division of Drinking Water (DDW) regulates and oversees water recycling projects, permits water treatment devices, and supports and promotes water system security.

1.3 PROJECT NEED

The system design, as described, creates the following issues:

- Water Supply. Before all *scheduled* maintenance operations (e.g., backwashing filters, cleaning sediment and flocculation basins), the water storage tank is filled to capacity to maintain service to the City customers and these scheduled operations generally are scheduled during low water demand periods. However, should the need for *unscheduled* repairs arise during high-demand periods or when the storage tank is low, water supply may be interrupted.
- Water Supply. The existing transmission pipeline between the finished water storage tank and the distribution main located in Murphy's Grade Road is over 50 years old, made of welded steel, and in poor condition. There is no backup to this segment of pipe and a pipe failure would cut off all water supplies to the City's system. There are no additional storage tanks and therefore the City does not have the ability to store water outside of the WTP site to provide an alternative water source.
- Time consuming, labor intensive, limits treated water production. In addition, outdated infrastructure (e.g., sedimentation basin) lacks modern design features and requires manual cleaning and maintenance that is both time-consuming, labor-intensive, and the WTP cannot produce water while many of these operations are in progress.
- Unnecessary water use. Water also can be unnecessarily used during the cleaning or maintenance activities. For example, 200,000± gallons of treated water are used during each backwash cycle while the treatment facility is off-line for backwashing all three filters.
- Discharge. The flocculation and sedimentation basins are cleaned quarterly and wastewater/settled solids from the process are discharged into an unnamed tributary. The composition of these waste streams may contain elevated levels of aluminum, iron, and manganese. Backwash from filter operations also is discharged off-site to the unnamed tributary. Backwash water is of poor quality containing constituents removed during the filtration process.
- Sediment overloads. The sedimentation basin is adversely affected by hydraulic short-circuiting. As a result, settling time is reduced, and the solids loading on downstream treatment units increases. The basin has been retrofitted with baffle curtains, but the short-circuiting problem persists.

1.4 PROJECT DESCRIPTION

To address the issues identified in the preceding sections, the City of Angels proposes the following improvements to the water treatment plant and transmission facilities over a two-phase, approximately five-year period:

- Add second flocculation basin to allow the WTP to continue operating when the existing flocculation basin is removed from service for maintenance or repairs. The additional flocculation basin would provide redundancy and capacity for planned future growth. This basin would be constructed parallel next to the existing basin.
- Repurpose the existing sedimentation basin to contain two concrete structures with plate settler inserts. The concrete structures will be configured parallel for redundancy to maintain plant operation during service and repairs. The structures could be sized for

future capacity such that additional plate settler inserts could be added to the structure itself. Because the concrete structures and plate settlers will be built into the repurposed basin, gravity flow from the flocculation basin will eliminate the need for pumping.

- Replace the three existing filters with two filters, each being 12 feet in diameter and 41 feet in length. Each filter will contain two cells and have a design flow capacity of 2,160 gpm which exceeds the projected 20-year Maximum Daily Demand (MDD). The cells in each filter act independently and allow for the other cells to continue treating water while one cell backwashes. This allows for redundancy in the system while still providing treatment capacity. By having these independent cells, the backwashing system becomes more water efficient, reducing the amount of water needed to backwash by 50-75%.

- Demolish and fill in the existing clear well to accommodate a new reclaim tank and reclaim water processing equipment. With the implementation of the recommended filter replacement, backwashing the improved filtration system will occur for three hours approximately once per week. The backwash water will be discharged directly to the new reclaim tank. The reclaim tank will be sized to contain the total volume of water generated by the backwash of all filters.

  The proposed treatment system for the reclaim water is an incline plate clarifier followed by a sludge press. The clarifier and press are a mechanical dewatering system with a significantly reduced footprint that not only meets the objectives of the Project by reclaiming up to 99% of backwash water, but is also modular, which allows for redundancy and planned future growth.

  Clarified effluent is collected in a common storage tank. Pumps will recycle up to 99% of the reclaim water back to the headworks to re-enter the WTP. The recycle line will be equipped with flow and turbidity monitors. Recycle flow will be less than or equal to 10% of the plant influent flow. Turbidity will be less than 2.0 Nephelometric Turbidity Units (NTU). The flow rate through the clarifier is dependent upon the recycle flow back to the plant's headworks. Low flow months will experience longer periods between backwash events therefore allowing for more time to process reclaim water prior to the next backwash. During high plant flows, recycle rates can increase therefore allowing reclaim water to be processed prior to the next backwash event.

- Water transmission line. Expand the current Rolleri easement (along the Project's access driveway) an additional 25 feet to install a new line and provide future accessibility. Resurface the existing paved driveway.

Phase 1: Demolish and fill-in the clear well.

Re-purpose to provide space for the reclaim tank and clarifying equipment. Install a new culvert from the existing weir box to the edge of the property to maintain flow to the Dog Town Ditch and allow movement between the equipment areas. Alternatively, a concrete span over the ditch may be constructed without culverting.

Divert raw water from the Angels Forebay through an existing pipeline to a new weir box to maintain the volume of water currently supplied to the unnamed tributary reflecting historic flows.

Divert sedimentation basin sludge and filter backwash water to the reclaim storage tank. The reclaimed water will be processed through a dewatering system and solids will be stored on a

covered concrete pad for pick up and disposal. Effluent water from the dewatering system will be recycled back and blended into the treatment plant's headworks.

Relocate the existing septic system and use that area for dewatering equipment and solids drying and storage.

Extend security fencing to enclose the additional process areas created with relocating the septic system and installing the culvert within the Union Ditch.

Replace the open ditch channel providing Union Ditch water from the Angels Forebay to the property boundary. Replace the channel with a culvert and regrade to allow maintenance personnel movement between equipment. The culvert's existing headwall will be retained

Phase 2: Expand the plant's capacity to meet the projected maximum daily demand flow for the year 2031.

Demolish and re-design the sedimentation basin area to accommodate an additional flocculation basin and two new plate settler structures. Two new filter vessels will replace the existing three vessels to increase production, reduce backwash water by more than 50 percent, and allow the plant to remain online during backwashing. Additional sludge dewatering equipment and drying beds will be added to process the increased sludge volume.

Figure 7: New Transmission Line and Alternative Transmission Line

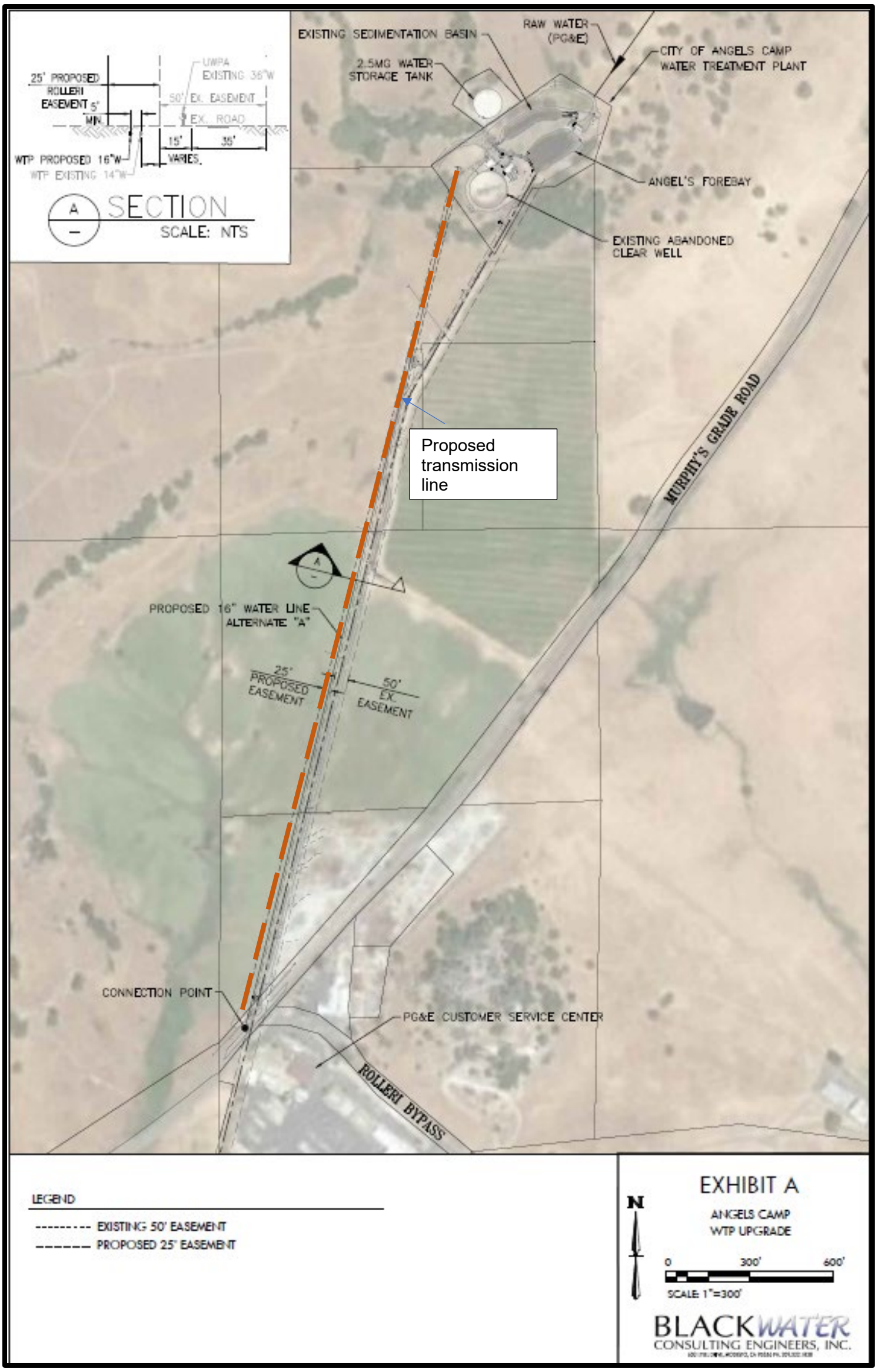
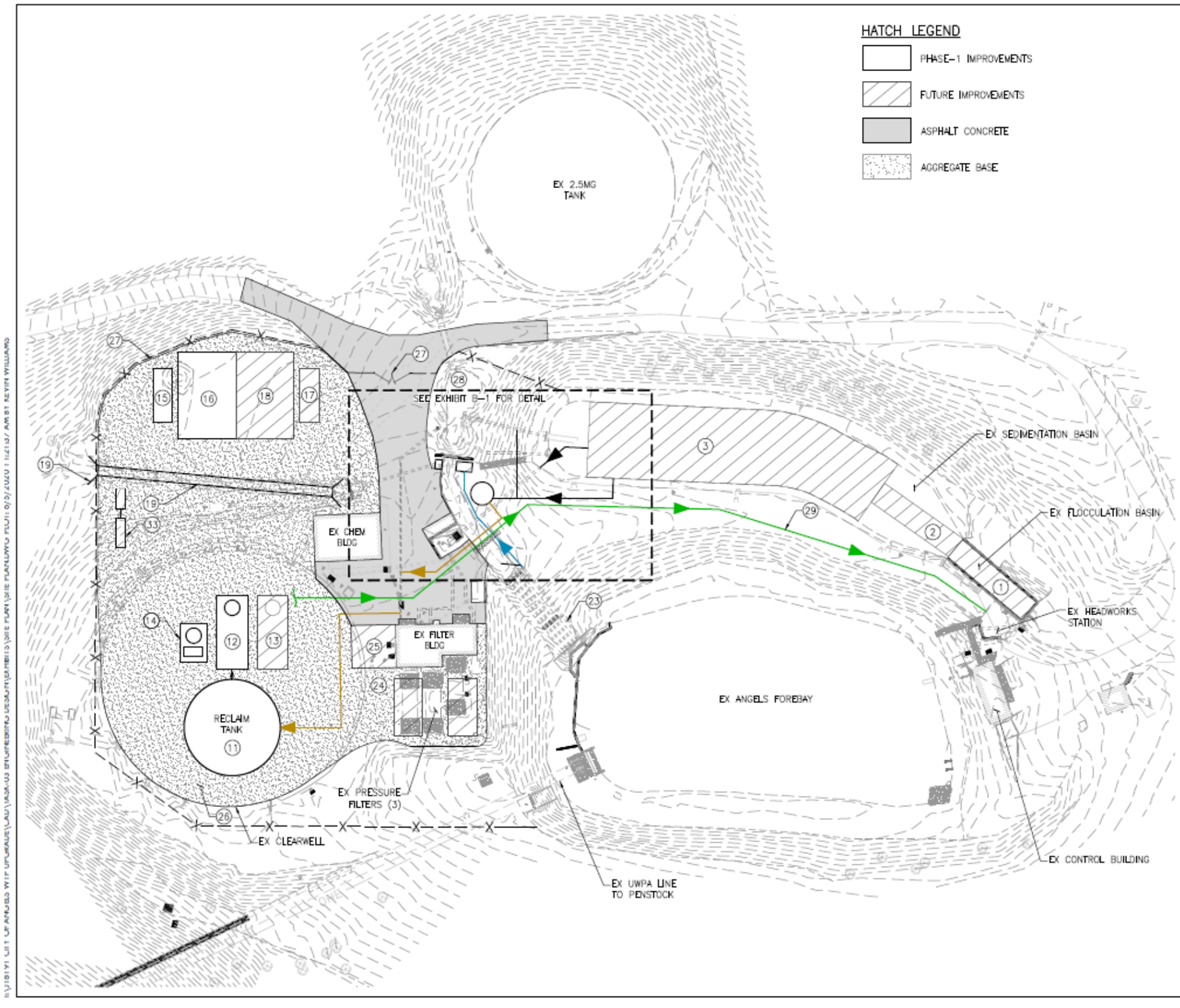


Figure 8: Project Plans - 1



PROJECT IMPROVEMENTS	
1	REFURBISH EXISTING CONCRETE STRUCTURE
2	EXTEND FLOCCULATION BASIN (50'L X 12'W X 10'H)
3	PRIMARY CLARIFICATION SYSTEM (TWO IN PARALLEL)
4	EXISTING LINE TO FILTERS
5	EXISTING FLOC/SED BASIN DRAIN LINE
6	NEW FLOC/SED BASIN DRAIN LINE
7	FUTURE CLARIFIER SLUDGE LINE
8	EXISTING SED BASIN SPILLWAY LINE
9	SLUDGE PUMP STATION/WET WELL
10	NEW SLUDGE DISCHARGE LINE TO RECLAIM TANK
11	RECLAIM TANK-FILTER BACKWASH AND SEDIMENTATION BASIN SLUDGE (GALLONS)
12	INCLINE PLATE CLARIFIERS (TWO IN PARALLEL ON 28'L X 16'W PAD) - FEED PUMPS, FLOC TANKS, CLARIFIER WITH THICKENING AND EFFLUENT TANK, EFFLUENT RECYCLE PUMPS
13	FUTURE INCLINE PLATE CLARIFIERS (TWO IN PARALLEL ON 28'L X 16'W PAD)
14	SLUDGE TANK AND PRESS FEED PUMPS - 5,000 GALLON, 14' X 20' CONCRETE PAD
15	SLUDGE PRESS EQUIPMENT - FLOC TANKS, PRESS, SOLIDS AUGER
16	SOLIDS STORAGE AREA - COVERED 45'L X 30'W CONCRETE PAD
17	FUTURE SLUDGE PRESS EQUIPMENT
18	FUTURE SOLIDS STORAGE AREA - COVERED 45'L X 30'W CONCRETE PAD
19	NEW BOX CULVERT WITH HEADWALL - TO DOG TOWN DITCH
20	NEW CONCRETE BOX MEASURING WEIR - FOREBAY RAW WATER TO BASIN (28)
21	EXISTING UWPA CONCRETE BOX MEASURING WEIRS TO REMAIN AS IS - FOREBAY RAW WATER TO DOG TOWN DITCH
22	EXISTING UWPA SPILLWAY BASIN TO REMAIN
23	EXISTING FOREBAY RAW WATER PIPE
24	PRESSURE FILTERS (2)
25	FUTURE FILTER BUILDING EXTENSION 50% (22' X 22')
26	FILL AND COMPACT CLEARWELL BASIN
27	NEW ENTRANCE GATE AND SECURITY FENCE
28	EXISTING CATCH BASIN - TO STOCK POND
29	NEW CLARIFIER FILTRATE RECYCLE LINE
30	NEW CATWALK OVER SPILLWAY
31	EXISTING PROPANE TANK RELOCATED
32	EXISTING BYPASS VALVE TO REMAIN
33	NEW SEPTIC TANK AND LEACH LINES

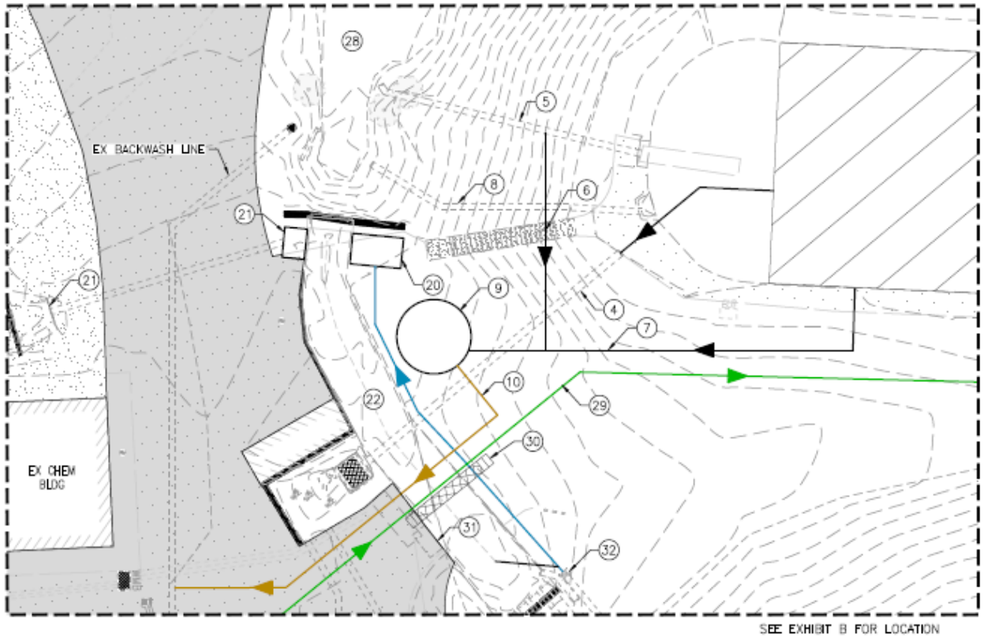
EXHIBIT B
ANGELS CAMP
WTP UPGRADE
0 50' 100'
SCALE: 1"=50'

BLACKWATER
CONSULTING ENGINEERS, INC.
602 LYELL DRIVE, MODESTO, CA 95356 PH. 209.322.1820

Figure 9: Project Plans - 2

HATCH LEGEND

- PHASE–1 IMPROVEMENTS
- FUTURE IMPROVEMENTS
- ASPHALT CONCRETE
- AGGREGATE BASE



PROJECT IMPROVEMENTS

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3	PRIMARY CLARIFICATION SYSTEM (TWO IN PARALLEL)
4	EXISTING LINE TO FILTERS
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32	EXISTING BYPASS VALVE TO REMAIN
33	NEW SEPTIC TANK AND LEACH LINES

EXHIBIT B-1

ANGELS CAMP

WTP UPGRADE

0 50' 100'

SCALE: 1"=50'

BLACKWATER CONSULTING ENGINEERS, INC.

602 LYELL DRIVE, MODESTO, CA 95356 PH. 209.322.1820

1.5 SITE DESCRIPTION:

The Project site and surrounding land uses are illustrated in the following figure.

Figure 10: Project Setting and surrounding land uses

1.6 PUBLIC RESOURCE CODE SECTION 21080.3.1 CONSULTATION

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California tribes as part of CEQA. Under AB 52, tribes requesting formal consultation from the Lead Agency are notified of the Project prior to the preparing the CEQA document. No California tribes have notified the City of Angels in writing that they request AB 52 consultation. The results of informal consultations are summarized in Section 2.17.

1.7 CEQA PROCESS

This document has been prepared to satisfy the requirements of CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before they approve or implement those projects.

The Initial Study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. In the case of the proposed Project, the City of Angels is the lead agency and will use the Initial Study to determine whether the proposed Project has a significant effect on the environment.

If the lead agency finds substantial evidence that any aspect of the proposed Project, either alone or in combination with other projects, may have a significant effect on the environment, that agency is required to prepare an Environmental Impact Report (EIR), a supplement to a previously prepared EIR, or a subsequent EIR to analyze the proposed Project at hand. If the agency finds no substantial evidence that the proposed Project or any of its aspects may cause a significant impact on the environment, a negative declaration may be prepared. If, over the course of the analysis, the proposed Project is found to have a significant impact on the environment that, with specific mitigation measures, can be reduced to a less-than-significant level, a supplemental mitigated negative declaration may be prepared. In the case of this proposed Project, all significant or potentially significant impacts on the environment would be reduced to less-than-significant levels with incorporation of specific mitigation measures. Therefore, this document is a mitigated negative declaration.

1.8 INCORPORATION BY REFERENCE

The following studies applicable to the proposed Project are hereby incorporated by reference. Copies of these studies, unless identified as confidential, may be viewed at the City of Angels Planning Department offices located at 200-B Monte Verda Avenue, Angels Camp, CA 95222 during regular business hours.

Black Water Consulting Engineers. June 2020. *Draft City of Angels Water Treatment Plant Improvements Engineering Report*.

Crawford & Associates, Inc. August 21, 2020. *Geotechnical Report City of Angels Water Treatment Plant (WTP) Upgrade Project – Clear Well Removal.*

Patrick GIS Group, Inc. May 2019. *Cultural Resources Study and Evaluations for the Water Treatment Plant Upgrade Project, City of Angels, Calaveras County, California.*

Ibid. October 21, 2020. Update Memorandum: Cultural Resources Study and Evaluations for the Water Treatment Plant Upgrade Project, City of Angels, Calaveras County, California.

1.9 OTHER PUBLIC AGENCY APPROVALS

Other public agency approvals that may be required for the Project are summarized in the following table.

Table 2: Other Public Agency Approvals or Reviews that May be Required

Permitting Agency	Permit
Calaveras County	Encroachment Permit
City of Angels	Grading Permit, Building Permit
Calaveras County Air Pollution Control District	Authority to Construct/Burn Permit, if necessary
California Regional Water Quality Control Board	Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit [California's National Pollutant Discharge Elimination System (NPDES) General Permit]
All other applicable local, state and federal permits required by law.	

2.0 ENVIRONMENTAL EVALUATION

TERMINOLOGY DEFINITIONS: The following terminology is used in this environmental analysis to describe the level of significance of potential impacts to each resource area:

- ***Potentially Significant Impact.*** This term applies to adverse environmental consequences that have the potential to be significant according to the threshold criteria identified for the resource, even after mitigation strategies are applied and/or an adverse effect that could be significant and for which no mitigation has been identified. If any potentially significant impacts are identified, an Environmental Impact Report (EIR) must be prepared consistent with the California Environmental Quality Act (CEQA).

- ***Less-than-Significant Impact with Mitigation.*** This term applies to adverse environmental consequences that have the potential to be significant but can be reduced to less-than- significant levels through the application of identified mitigation strategies that have not already been incorporated into the proposed Project.

- ***Less-than-Significant Impact.*** This term applies to potentially adverse environmental consequences that do not meet the significance threshold criteria for that resource. Therefore, no mitigation measures are required.

- ***No Impact.*** This term means no adverse environmental consequences have been identified for the resource or the consequences are negligible or undetectable. Therefore, no mitigation measures are required.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is "Less Than Significant with Mitigation Incorporated" as indicated by the checklists and report on the following pages.

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

DETERMINATION:

☐ 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 and a MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

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

Amy Augustine, AICP - City Planner
City of Angels

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

2.1 AESTHETICS

I. AESTHETICS. Except as provided in PRC 21099, would the Project:	Potentially Significant Impact	Less Than Significant with 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 a non-urbanized area, substantially degrade the quality of public views of the site and its surroundings? (Public views are those that are experiences 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 which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

2.1.1 Background and Setting

The project setting is illustrated in **Figure 7**. The project sits at the top of a wooded hill visible from Murphys Grade Road (MGR). The nearest point from the WTP to the roadway is 950± feet where vegetation and elevation make the plant invisible from Murphys Grade Road at that point. The WTP's water storage tank is located on the northwesterly side of the complex and slightly downhill, not visible from any public rights-of-way. The UWPA above-ground water transmission pipeline (penstock) is the most visible portion of the project site and is not a part of this project. The most visible view of the WTP from Murphys Grade Road is more than 2,900± feet in the distance. The primary structure visible from the WTP is PG&E's microwave reflector which will remain (**Figure 8**). Proposed new structures associated with this project will not extend above the tree-line or be visible from public rights-of-way.

2.1.2 Analysis

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 a non-urbanized area, substantially degrade the quality of public views of the site and its surroundings?

Less Than Significant.
Given the project's isolation, distance from public rights-of-way and extensive natural woodland screening, and no addition of structures that will be visible from public rights-of-way in conjunction with the project, no scenic vistas will be impacted. The site is not visible from a designated state scenic highway. Up to 7 native oak trees may be removed. Of these, four visible trees may be removed. Given the density of existing oaks and the location of those slated for potential removal (**Figure 14**), no portion of the WTP will be exposed by removing the trees. Therefore, impacts will be less than significant impact.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

Figure 11: View of Water Treatment Plant from Murphys Grade Road Project Entrance

Figure 12: PG&E Microwave reflector at WTP visible from Murphys Grade Road

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

Less than Significant Impact with Mitigation.
Additional lighting is anticipated for the new filtration area and drying beds. The addition of new lighting for the project could create glare into the night sky, a potentially significant adverse impact. To minimize these potential impacts, the following mitigation measure is proposed:

Mitigation Measure: AES-1 Site Lighting
Throughout the life of the project: all exterior lighting will be shielded and aimed downward.

Mitigation Monitoring AES-1: The measure is the responsibility of the Project Proponent.

Proper implementation of the preceding mitigation measures is expected to reduce the Project's potential impacts to a level of less-than-significant.

2.2 AGRICULTURE AND FORESTRY RESOURCES

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

2.2.1 Background and Setting

The site is surrounded by grasslands primarily used for cattle grazing. None of these lands are under a Williamson Act Land Conservation Contract. Soils characteristics on site are detailed in **Figure 19** (Geology and Soils).

2.2.2 Analysis

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

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

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

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

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact.
The USDA NRCS Web Soil Survey classifies on-site soils as non-prime. Given the relatively low site elevation, soils are not rated for forest use per the soils analysis found in **Figure 19**, Section 2.7 Geology and Soils. The parcels are not zoned for timberland uses and are not in agricultural preserves at this time. Should the lands be included in an agricultural preserve or Williamson Act Contract in the future, the addition of a sub-surface water transmission line, adjacent to the existing sub-surface water transmission line, as proposed by the project, would not impact the continuing use of the site for agricultural purposes just as the existing sub-surface water line does not interfere with current grazing practices. Based on the preceding, no significant adverse impacts to agricultural or forestry resources are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.3 AIR QUALITY

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:	Potentially Significant Impact	Less Than Significant with 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 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?	☐	☐	☒	☐

2.3.1 Background and Setting

The Project site is located within the Mountain Counties Air Basin under the jurisdiction of the Calaveras County Air Pollution Control District (CCAPCD). Angels Camp air quality regulations are under CCAPCD jurisdiction. While there are minimal sources that impact air quality within the District, Calaveras County does experience air quality impacts from the Central Valley through transport pollutants. The most visible impacts to air quality in the District are a result of open burning vegetation by individual property owners, industry, and state agencies for purposes of reducing wild land fire hazards. In addition, project construction and operations may generate air emissions.

Both the U.S. Environmental Protection Agency (EPA) and California Air Resources Control Board (CARB) have established ambient air quality standards for common air pollutants. These standards identify levels of contaminants expected to avoid adverse health effects. Federal and state standards were developed independently with differing purposes and methods, although both emphasize avoiding health-related effects. As a result, state and federal standards differ in some cases. In general, California standards are more stringent (e.g., for ozone, PM_{10} and $PM_{2.5}$).

Calaveras County is designated as non-attainment (i.e., violates an ambient air quality standard) for the following air pollutants (i.e., criteria pollutants):

- Marginal non-attainment for 8-hour ozone per federal standards. Non-attainment classifications vary from marginal to extreme. Marginal is the lowest non-attainment designation with extreme being the most severe.
- Non-attainment for inhalable particulate matter smaller than 10 microns (PM_{10}) per state standards
- Non-attainment for Ozone per state standards.

The Federal Clean Air Act (CAA) and California Clean Air Act require areas designated non-attainment to reduce emissions until standards are met.

The County is designated as either attainment (within established standards) or unclassified (i.e., insufficient data exists to determine attainment or non-attainment) for Carbon Monoxide, fine particulate matter smaller than 2.5 microns in diameter (PM2.5), Nitrogen dioxide (NOx) and Sulfur dioxide (SO_2)

Ozone (0_3)
Ozone is an ingredient of smog and is a highly reactive and unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through complex reactions between chemicals emitted from vehicles, industrial plants, and many other sources. Key pollutants involved in ozone formation are hydrocarbon and nitrogen oxide gases. Exposure to ozone above current ambient air quality standards can lead to human health effects such as lung inflammation and tissue damage and impaired lung function.

Particular Matter (PM 2.5 and PM 10)
Airborne particulate matter (PM) is not a single pollutant, but rather is a mixture of many chemicals. It is a complex mixture of solids and aerosols composed of small droplets of liquid, dry solid fragments, and solid cores with liquid coatings. Particles vary widely in size, shape, and chemical composition, and may contain inorganic ions, metallic compounds, elemental carbon, organic compounds, and compounds from the earth's crust. Particles are defined by their diameter for air quality regulatory purposes. Those with a diameter of 10 microns or less (PM_{10}) are inhalable into the lungs and can induce adverse health effects. Fine particulate matter is defined as particles that are 2.5 microns or less in diameter ($PM_{2.5}$). Therefore, $PM_{2.5}$ comprises a portion of PM_{10}.

Emissions from combustion of gasoline, oil, diesel fuel or wood produce much of the $PM_{2.5}$ pollution found in outdoor air, as well as a significant proportion of PM_{10}. PM_{10} also includes dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, wind-blown dust from open lands, pollen, and bacteria fragments.

Project implementation will result in construction activity that generates air pollutant emissions. Grading, excavation and travel on unpaved surfaces generates dust and can lead to elevated concentrations of PM_{10} and $PM_{2.5}$. Construction equipment produces exhaust emissions. Most construction equipment is powered by diesel engines, which produce relatively high levels of nitrogen oxide (NO_x) emissions. Construction activity could also potentially entrain naturally occurring asbestos (NOA), if present in the soil.

Significance Thresholds
Angels Camp 2020 General Plan Air Emissions CEQA Thresholds were used to establish thresholds for ROG, NOx, PM10 and CO. Project-related emissions exceeding 2020 General Plan values are considered significant impacts. Values equal to or less than those established in General Plan 2020 are considered less-than-significant impacts.

Thresholds established in General Plan 2020 are:

Type of Pollutant Emissions	Amount of Pollutant Emissions in Pounds per Day
Ozone precursors (sum of Reactive Organic Gases [ROG] and Nitrogen Oxides [NOx)	274
Inhalable particulate matter (PM10)	383
Other pollutants [including Carbon Monoxide (CO)]	550
Note: Thresholds applied to both construction-related and operational emissions. Source: City of Angels Camp General Plan 2020 from the Amador County Air Pollution Control District.	

Angels Camp General Plan 2020 also provides thresholds for determining when individual projects are likely to trigger the preceding thresholds (General Plan Appendix 9A) and provides guidelines for reducing vehicle emissions in General Plan Appendix 9B. Those thresholds are applied here.

Naturally Occurring Asbestos (NOA)

Naturally occurring asbestos has been identified as a toxic air contaminant (TAC) by CARB. No quantitative significance thresholds have been set for NOA. However, the California Department of Conservation internet website provides a map that may be used as a screening- level indicator of the likelihood of NOA being present on the proposed project site (http://www.conservation.ca.gov/cgs/minerals/hazardous_minerals/asbestos/Pages/Index.aspx). The map, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (California Department of Conservation 2000) shows the locations considered to be subject to elevated risk of containing NOA.

If a project site is located outside of areas considered to be subject to elevated risk of containing NOA, it may be considered to have a relatively lower probability of containing NOA and, in this report, will be considered to have a less-than-significant impact.

If a project site is located within an area considered to be subject to elevated risk of containing NOA, it may be considered to have an elevated probability of containing NOA and, in this report, will be considered to have a significant impact.

Implementation of mitigation measures to reduce asbestos emissions during construction activities will be considered to reduce the impact to a less-than-significant level.

2.3.2 Analysis

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

Less than Significant

The Calaveras County APCD does not have an adopted air quality plan. Therefore, the project will not conflict with an adopted plan and no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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

Less than Significant

Criteria pollutants

The general level of air emissions created by certain classes of projects may be predicted based on the size and nature of the proposed project. Pursuant to General Plan 2020, implementation program 9.A.q, the City will establish thresholds for when air quality assessments shall be prepared for various classes of projects (i.e., when the nature and size of the project are expected to result in a potentially significant adverse impact on air quality or contribute substantially to an air quality violation). The *Angels Air Quality Study* recommends such standards as incorporated into General Plan 2020, Appendix 9A.

Pursuant to these standards [2] the following thresholds do not trigger the need to quantify emissions as they are determined not to exceed General Plan 2020 thresholds:

- Industrial uses with 1,506 or fewer trips/day
- Institutional uses with 1,707 or fewer trips/day

The project site is visited twice daily by City personnel – significantly fewer trips/day than those established by the preceding thresholds. No increase in trips to the plant will occur in conjunction with the project which aims to improve plant efficiency. Because the project is substantially below the general plan thresholds, an air quality emission study is not required for the project and it is concluded that the Project will not exceed criteria pollutants—a less than significant impact.

In addition, project upgrades are proposed to increase water treatment plant efficiency. Upgrading old infrastructure with modern infrastructure meeting current air emissions standards is expected to further reduce emissions below existing levels – a less than significant impact.

Therefore, no mitigation measures are required.

Naturally Occurring Asbestos (NOA)

The map, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos (Open File Report 2000-19)* shows areas more likely to contain NOA. Soil-disturbing construction activity in these areas result in an elevated risk of entraining NOA. The asbestos map shows the project site is located outside areas designated as likely to contain NOA – the nearest such occurrence is south and east of Melones Reservoir.

Because of the distance between the project site and the nearest area considered more likely to contain NOA, this impact is considered less than significant. No mitigation measures are required.

[2] These threshold standards from the *Angels Air Quality Analysis* as incorporated into General Plan 2020 are based on: *San Joaquin Valley Air Pollution Control District Guide for Assessing and Mitigating Air Quality*, January 10, 2002 revision.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation Incorporated.

One of the most important reasons for air quality standards is the protection of those members of the population who are most sensitive to the adverse health effects of air pollution, termed "sensitive receptors." The term refers to specific population groups, as well as the land uses where individuals would reside for long periods. Commonly identified sensitive population groups are children, the elderly, the acutely ill, and the chronically ill. Commonly identified sensitive land uses include facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Residential dwellings, schools, parks, playgrounds, childcare centers, convalescent homes, and hospitals are examples of sensitive land uses.

A single residence occurs in proximity to the Project site. During construction, the residence could be exposed to air emissions including dust and equipment emissions during construction activities, or smoke associated with site preparation--a potentially significant impact. The following mitigation measures are included to minimize the potential for exposing the potential sensitive receptor to construction dust and smoke particles associated with site preparation.

Mitigation Measure AQ-1: Dust Control

Throughout project construction, including demolition, site clearing, grading and associated activities, the Project Proponent and Construction Contractor shall be responsible for dust abatement including:

A. A water truck shall be present on the construction site throughout construction activities and shall be available for use on all working days when natural precipitation does not provide adequate moisture for complete dust control. Said watering device shall be used to spray water on the site at the end of each day and at all other intervals, as need dictates, to control dust. All fugitive dust emissions caused by land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled using application of water.

B. All material excavated and stockpiled onsite and/or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

C. All land clearing, grading, earth moving, or excavation activities shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.

D. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance and/or visible dust plumes.

E. Vehicular traffic speeds on unpaved surfaces shall not exceed 10 miles per hour.

Mitigation Monitoring AQ-1: The required mitigation measure will be implemented throughout Project construction. The measure, which is the responsibility of the Project Proponent, shall be included on the construction plans.

Mitigation Measure AQ-2: Open Burning
Alternatives to open burning of vegetative material will be used during vegetation clearing and grubbing activities, unless otherwise deemed infeasible by the CCAPCD. Suitable alternatives include chipping, mulching, or conversion to biomass fuel.

Mitigation Monitoring AQ-2: The required mitigation measure will be implemented during clearing and grubbing. The measure is the responsibility of the Project Proponent.

Mitigation Measure AQ-3 Authority to Construct/Operate Permit
Prior to commencing site disturbance (or issuance of a grading permit), the applicant shall obtain an authority to Construct Permit or confirmation that one is not required from the Calaveras County Air Pollution Control District.

Mitigation Monitoring AQ-3: The required mitigation measure will be implemented prior to commencing site disturbance(or issuance of a grading permit, if required). The measure is the responsibility of the Project Proponent.

Mitigation Measure AQ-4: Equipment Emissions - Construction
Throughout Project construction, the Project Proponent shall be responsible for equipment emissions including:

A. Ensuring that all equipment and vehicles are properly tuned and maintained and that low-sulfur fuel is used in all construction equipment as provided in California Code of Regulations (CCR) Title 17, Section 93114 (Compliance with Caltrans' Standard Specifications, Section 14-9).
B. Heavy-duty diesel-powered construction equipment is prohibited from idling for more than five minutes during periods when the equipment is not in use.
C. Grid (electrical) power shall be used (as opposed to diesel generators) for job site power needs where feasible during construction.

Mitigation Monitoring AQ-4: The required mitigation measure will be implemented throughout Project construction and throughout the life of the project. The measure is the responsibility of the Project Proponent.

Proper implementation of the preceding measures will reduce the potential impact to a level of less-than-significant.

Operational Emissions

Operational emissions include vehicle emissions from City employee visits to the site and added pumps and motors to improve plant efficiency. As noted, the project site is visited twice daily by City personnel. No increase in trips to the plant will occur in conjunction with the project which aims to improve plant efficiency. Because the project is substantially below the general plan threshold, an air quality emission study is not required for the project and it is concluded that the Project will not exceed criteria pollutants—a less than significant impact.

Energy efficient pumps and motors are being added to the plant in conjunction with the proposed project. These will replace some of the WTP's older, less efficient, pumps and motors. These added pumps and motors, while generating air emissions, will allow for uninterrupted operations in the event of equipment failures and during maintenance operations. Because these added pumps and motors primarily will operate redundant systems rather than

add new systems, increases in operational air emissions are expected to be less than significant.

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

Less Than Significant.

Construction-related

The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines may be considered offensive to some individuals. Odors would be temporary (construction-related only) and disperse with distance from the source. One residence is located 700± feet west of the WTP which is otherwise surrounded by open grazing land. Given the single receptor and distance to the single receptor, construction-generated odors are not expected to affect a substantial number of people, therefore a less-than-significant impact is anticipated ant no mitigation is required.

Operational

Chemical treatment at the facility includes use of sodium hypochlorite, an aluminum sulfate (alum) coagulant, chlorine disinfectant (manufactured on site, 0.08%), zinc orthophosphate (anti-corrosive) and sodium hydroxide (50% concentration aka caustic soda). Most of these are used in contained tanks or buildings and odors do not leave the project site. Filter backwash emptied into the intermittent drainage will be eliminated by this project, thereby reducing any associated odors. Alum used to help settle solids in the flocculant basin (open and exposed to air) does not generate an odor. Therefore, odors related to existing and future chemical use would not affect a substantial number of people, a less-than-significant impact.

New operational activities (upon project completion) that may generate odors are primarily associated with sediment solids being stored on a covered concrete pad for pick up and disposal. However, unlike wastewater treatment plants, these solids generally do not generate offensive odors. Given the nature of the facility, its operations, and the distance from the proposed solids storage area to the nearest receptor, the impact is expected to be less-than-significant.

2.4 BIOLOGICAL RESOURCES

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

2.1.1 **Background and Setting**

Regulatory Background

For the purposes of biological resources and this project, a species is considered “Special Status” if it meets one or more of the following:

- Listed pursuant to the California Endangered Species Act (CESA)
- A candidate for listing pursuant to CESA
- A species petitioned for listing pursuant to CESA
- Listed pursuant to the Federal Endangered Species Act (FESA)
- A candidate for listing pursuant to FESA
- A species petitioned for listing pursuant to FESA
- Designated by the CDFW as a Species of Special Concern (SSC)
- Designated by the CDFW as a Special Animal (SA)
- Designated by the CDFW as a Fully Protected Species (FPS)
- Designated by CNPS as List 1A (Presumed extinct in California), List 1B (Rare,

threatened, or endangered in California and elsewhere), or List 2 Plant (Plants rare, threatened, or endangered in California but more common elsewhere)
- Identified by the US Forest Service as Sensitive (USFS-S)
- Identified by the US Bureau of Land Management as Sensitive (BLM-S)
- Identified by the International Union for Conservation of Nature (IUCN) as vulnerable
- Identified by the Western Bat Working Group (WBWG) as High Priority
- Identified by the WBWG as Moderate Priority

Protections for bird species include:

- Birds identified by the US Fish and Wildlife Service as Birds of Conservation Concern (USFWS BCC)

- Bird protected pursuant to CA Fish and Game Code 3503: It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.

- Birds protected pursuant to CA Fish and Game Code 3503.5**:** It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

- Birds protected pursuant to CA Fish and Game Code 3511(a)(1): Except as provided in this section, Section 2081.7, or Section 2835, a fully protected bird may not be taken or possessed at any time. No provision of this code or any other law shall be construed to authorize the issuance of a permit or license to take a fully protected bird, and no permit or license previously issued shall have any force or effect for that purpose. However, the department may authorize the taking of a fully protected bird for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species, and may authorize the live capture and relocation of a fully protected bird pursuant to a permit for the protection of livestock. Before authorizing the take of a fully protected bird, the department shall make an effort to notify all affected and interested parties to solicit information and comments on the proposed authorization. The notification shall be published in the California Regulatory Notice Register and be made available to each person who has notified the department, in writing, of his or her interest in fully protected species and who has provided an e-mail address, if available, or postal address to the department.

- Birds protected pursuant to CA Fish and Game Code 3513 (a): It is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act (16 U.S.C. Sec. 703 et seq.) before January 1, 2017, any additional migratory nongame bird that may be designated in that federal act after that date, or any part of a migratory nongame bird described in this section, except as provided by rules and regulations adopted by the United States Secretary of the Interior under that federal act before January 1, 2017, or subsequent rules or regulations adopted pursuant to that federal act, unless those rules or regulations are inconsistent with this code. (b) This section shall become inoperative on January 20, 2025, and, as of January 1, 2026, is repealed.

- The Migratory Bird Treaty Act (MBTA) (16 US Code 703 *et seq.*) governs the taking,

killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Moreover, the MBTA prohibits the take, possession, import, exports, transport, selling, purchase, barter—or offering for sale, purchase, or barter—any migratory bird, their eggs, parts, or nests, except as authorized under a valid permit.[3] On February 3rd, 2020, the USFWS published a proposal to adopt a regulation that redefines the scope of the MBTA towards actions resulting in the injury or death of protected migratory birds.[4] The MBTA's prohibitions on take now apply only to affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs, and do not apply to take that is incidental to, and not the purpose of, a lawful activity.[5]

On August 11, 2020, United States District Court Southern District of New York and The Natural Resources Defense Council, Inc.; National Wildlife Federation v. U.S. Department of the Interior; U.S. Fish and Wildlife Service; et al. effectively re-instated the Migratory Bird Treaty Act. Given the fluctuating circumstances relative to the MBTA, this analysis assumes the provisions of the MBTA to remain in effect.

Methodology

Natural resources were identified through a review of databases and species lists from the United States Fish and Wildlife Service (USFWS), California Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS) and updated in August 2020. **Table 2** lists the potential for all species identified in these databases and lists to occur on site. All state and/or federally listed species identified are addressed and those with potential to occur within the biological study area (BSA) are analyzed in the following.

Site surveys were conducted by foot on the following dates: May 15, 2018, January 29, 2019, July 31, 2020 and September 6, 2020 by Amy Augustine, Augustine Planning Associates, Inc. biologist. **Attachment C** identifies the species encountered during field surveys.

The Project site, access areas and staging areas were surveyed for nests, whitewash, and droppings. All accessible tree cavities and burrows were investigated for signs of use. Trees were surveyed for nests (whether currently active or with potential to become active). Surveys were conducted using Canon Image Stabilizer 10 X 30 binoculars, Nikon D3300 digital camera (18-55mm and 70-300mm lens), and standard field and collection supplies.

Setting

On-site vegetation is illustrated in **Figure 13**, **Figure 14**, and **Figure 15**.

[3] Code of Federal Regulations Title 50 Section 21.11.

[4] Federal Register, 2020, Regulations Governing Take of Migratory Birds, available online at https://www.federalregister.gov/documents/2020/02/03/2020-01771/regulations-governing-take-of-migratory-birds, accessed March 24, 2020.

[5] United States Department of the Interior, 2017, Memorandum, Subject: The Migratory Bird Treaty Act Does Not Prohibit Incidental Take, dated December 22, 2017, https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf, accessed March 24, 2020.

Analysis

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

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant with Mitigation Incorporated.
The potential for special status species identified in CDFW, USFWS, CNDDB and CNPS databases to occur on site is evaluated in **Table 3.**

Table 3: Evaluation of Species with Potential to Occur at the City of Angels Water Treatment Plant Project site

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
Plants			
Chinese camp brodiaea *Brodiaea pallida*	FT SE CNPS 1B.1	Vernal streambeds, often serpentinite, cismontane woodland, Valley and foothill grassland. Blooms May – June.	U - The nearest CNDDB record is nearly 12 miles from the project site. The site lacks the species' preferred serpentine soils. The species was not present during surveys conducted during the species' blooming period. It is unlikely to occur on site.
Red Hills cryptantha *Cryptantha spithamaea*	CNPS 1B.3 BLM-S	Chaparral, cismontane woodland. Serpentinite, sometimes streambeds, sometimes openings. Chaparral, Cismontane woodland, Ultramafic. Blooms April-May.	U – The nearest CNDDB record is more than 4 miles from the project site. The project site lacks the species' preferred serpentine soils and/or rocky soils. The species was not present during surveys conducted during the species bloom period and is unlikely to occur on site.
Yellow-lip pansy monkeyflower *Diplacus pulchellus*	CNPS 1B.2 BLM-S USFW-S	Lower montane coniferous forest, meadows and seeps. Vernally wet sites. Soils can be clay, volcanic, or granitic. Lower montane coniferous forest Meadow & seep. Blooms April – July.	U – The nearest CNDDB record is within 1 mile of the project site. The project site includes seeps. All natural and man-made on-site drainages and seeps were surveyed for the species during the species bloom period. The species was absent. Therefore, the species is not expected to occur.
Tuolumne button celery *Eryngium pinnatisectum*	CNPS 1B.2	Cismontane woodland, lower montane coniferous forest, vernal pools/mesic. Blooms May – August.	U – The nearest CNDDB record is more than 4 miles from the project site. The project site lacks the vernal pool type habitat preferred by the species. The on-site drainages were surveyed for the species during the species bloom period. No species of the *Eryngium* genus were present. The species is not expected to occur.
Patterson's navarretia *Navarretia paradoxiclara*	CNPS 1B.3 BLM-S	Meadows and seeps. Serpentinite, openings, vernally mesic, often drainages. Meadow	U - The nearest CNDDB record is more than 5 miles from the project area. The site lacks the species' preferred serpentine soils and vernal pools. The on-site drainages

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
		& seep. Ultramafic. May – June(July)	were surveyed for the species during the species bloom period. The species was not present and is not expected to occur.
Animals			
Mollusks			
Button's Sierra sideband *Monadenia mormonum buttoni*	None	Known from the central Sierra Nevada counties. Chaparral Cismontane woodland Valley & foothill grassland.	**U** - The nearest CNDDB record is more than 4 miles from the project area. No snail species were identified during project surveys. The species is not expected to occur.
Fish			
Delta smelt *Hypomesus transpacificus*	FT SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. Aquatic, Estuary; Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	**U –** The nearest CNDDB record is more than 45 miles from the project area. The site lacks the river habitat necessary to support the species. The on-site drainages are not connected to the Sacramento-San Joaquin Delta in a manner that would allow the species to migrate to the site. The species is not expected to occur.
Amphibians			
California Tiger Salamander *Abystoma californiense*	FT ST CDFW-WL	Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool Wetland; Need underground refuges, especially ground squirrel burrows, & vernal pools or other seasonal water sources for breeding.	**U -** The nearest CNDDB record is 17± miles from the project area. The site itself lacks significant numbers of rodent burrows that the species relies on for refuge given extensive hardscape on site. None were present during site inspections. The species is considered unlikely to occur.
California red-legged frog *Rana draytonii*	FT CDFW-SSC	The species prefers quiet pools of streams, marshes, and occasionally ponds. Lowlands and foothills in or near permanent sources of deep water with	**U** – The nearest CNDDB records for the species is 15± miles from the Project site. The on-site ponds (Forebay and Flocculant settling pond) hold water deep-enough to support the species. There is minimal vegetative cover immediately adjacent to both ponds to

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
		dense, shrubby, or emergency riparian vegetation. 11-20 weeks of permanent water and access to estivation habitat necessary.	provide cover. Flushing and the addition of chemicals to the settling/flocculant pond makes it unsuitable habitat for the species – a survey of 100% of the flocculant pond identified zero animal species, likely due to the presence of chemical use. T A daylight survey of 100% of the forebay in September 2020 revealed more than 20 bullfrogs including adults and subadults. Given the high concentration of bullfrogs in a limited area and high survey coverage of the forebay, CRLF are not expected to occur.
Birds			
Clark's grebe *Aechmophorus clarkii*	USFWS-BCC	Uncommon to fairly common on large lakes near coast and inland at low elevations, and rare in Great Basin.	**U –** There are no CNDDB records for this species. The site lacks the species' preferred habitat (large lakes) and is not expected to occur on site.
Tricolored blackbird *Agelaius tricolor*	BLM-S CDFW-SSC FPE/c/ USFWS-BCC	Colonial species which requires open water, protected nesting substrate and foraging area with insect prey within a few kilometers of the colony.	**P-** CNDDB records for the species occur within 1.5 miles of the project site. The site lacks necessary nesting substrate in combination with foraging habitat (i.e., lacks cover in association with open water at the Water Treatment Plant). The species was not located during surveys at the WTP and is not expected to occur on site. However, potential for the species to occur exists 350± feet west of the project's access road in the vicinity of the proposed new water line (See feature #4 and #5, **Figure 15**). Habitat is found in a small pond that will not be directly disturbed by the project. The pond includes nesting substrate (cattails) adjacent to irrigated grassland foraging habitat. Nesting tricolors, if present, could be disturbed during project construction of the new water line. The species was not identified during project surveys; however, access to the off-site pond habitat was restricted and species absence could not be confirmed. Mitigation to address potential impacts to this species is included.

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
Oak titmouse *Baeolophus inornatus*	USFWS-BCC	Oak woodlands. Cavity nester.	**P –** There are no CNDDB records in Calaveras County for the species. The site provides suitable habitat (oak woodland). The species was not identified on the Project site during surveys, although ample habitat is present. Preconstruction surveys will ensure that the species is not nesting on the Project site prior to commencing construction.
Lawrence's goldfinch *Carduelis lawrencei*	USFWS-BCC	Uncommon in foothills surrounding Central Valley April through September. Breeds in open oak or other arid woodland and chaparral, near water. Typical habitats include valley foothill hardwood, valley foothill hardwood-conifer.	**P** – There are no CNDDB records in Calaveras County. The species was not identified during surveys; however, suitable habitat (oak woodland near water) exists on site to support the species. Preconstruction surveys will ensure that the species (nesting) continues to be absent from the Project site prior to commencing construction.
Wrentit *Chamaea fasciata*	USFWS-BCC	A common, characteristic resident of California chaparral habitat. Also frequents shrub understory of coniferous habitats from the coast to lower regions of mountains throughout cismontane California. Cover: Chaparral, coastal scrub, and other dense stands of shrubs provide cover.	**U** - There are no CNDDB records for this species. While the site has ample shrub understory, the site lacks the typical chaparral habitat preferred by the species. It was absent during surveys and is not expected to occur on site.
Common yellow throat *Geothylypis trichas sinuosa*	USFWS-BCC CDFW-SSC	Resident of the San Francisco Bay region in fresh and saltwater marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**U** - There are no CNDDB records for this species. The site lacks the thick cover adjacent to water required for nesting. The species was not present during surveys and is not expected to occur on site.

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
Bald eagle *Haliaeetus leucocephalus*	BGEPA SE BLM-S CDF-S FPS USFS-S USFWS-CC	Lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**U -** There are no CNDDB occurrences recorded within 2 miles of the project site, however the species is known to nest within 7 miles of the project site. The site lacks the large old-growth trees adjacent to *large* water bodies preferred by the species. The on-site treatment ponds are not stocked with fish. The site is not suitable for breeding or feeding and the species is not expected to occur.
Lewis's woodpecker *Melanerpes lewis*	USFWS-BCC	Breeds in open forest and woodland with an open canopy and brushy understory. Requires dead trees for nest cavities.	**P** - There are no CNDDB records for the species in Calaveras County. The species is known in the foothills especially from blue oak woodlands within annual grasslands which are present on site. The species was not identified during surveys, but given the suitable habitat, could occur on site. Preconstruction surveys will ensure that the species (nesting) continues to be absent from the Project site prior to commencing construction.
Song sparrow *Melospiza melodia*	CDFW-SSC USFWS-BCC	Common resident of most of California. Prefers riparian, fresh or saline emergent wetland, and wet meadow habitats. Breeds in riparian thickets of willows, other shrubs, vines, tall herbs, and in fresh or saline emergent vegetation. In winter in much of northern California, also may be found far from water, in open habitats with thickets of shrubs or tall herbs. Usually avoids densely wooded habitats, except along forest edges.	**U** - There are no CNDDB records for the species in Calaveras County. The site lacks the thick riparian thickets preferred by the species. While the species might find suitable habitat off-site at the pond more located more than 300 feet from the access roadway, it is unlikely to occur on site. The species was not present during surveys. If present near the off-site pond, it is more than 300 feet from potential construction areas, therefore it is unlikely to be disturbed, if present and no mitigation is proposed.
Yellow-billed magpie *Pica nuttalli*	USFWS-BCC	Common, yearlong resident of the Central Valley. Inhabits valley foothill hardwood, valley foothill	**P** - There are no CNDDB records for the species. The site has oak woodland habitat somewhat above the normal species range; however, it could occur on site.

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
		hardwood-conifer, valley foothill riparian, orchard vineyard, cropland, pasture, and urban habitats.	Preconstruction surveys will ensure that the species (nesting) continues to be absent from the Project site prior to commencing construction.
Nuttall's woodpecker *Picoides nuttallii*	USFWS-BCC	Common, permanent resident of low-elevation riparian deciduous and oak habitats. Occurs in the lower portions of the Sierra Nevada.	**P** - There are no CNDDB records for this species. The species was not identified during surveys. However, suitable habitat exists within the live oaks near the on-site ditch. Preconstruction surveys will ensure that the species (nesting) is not present prior to commencing construction.
Spotted towhee (San Clemente) *Pipilo maculatus clementae*	USFWS-BCC CDFW-SSC	The species range is currently identified by CDFW as Santa Catalina and Santa Rosa islands (and extirpated from San Clemente island) in the Channel Islands.	**U -** There are no CNDDB records for this species. The common spotted towhee (*Pipilo maculatus*) is expected to occur within the project boundaries. The Project site is well outside the range for *Pipilo maculatus clementae* (Santa Rosa and Santa Catalina islands in the Channel Islands). That species was not identified during surveys and is not expected to occur.
Rufous hummingbird *Selasphorus rufus*	USFWS-BCC	Breeds in Transition life zone of northwest coastal area from Oregon border to southern Sonoma County. Nests in berry tangles, shrubs, and conifers. Favors habitats rich in nectar-producing flowers.	**P** - There are no CNDDB records for this species. The site includes "berry tangles" but lacks conifer habitat. There are no nearby rich, nectar-producing flowers nearby. Habitat is very marginal for this species and it was not identified during surveys. However, given the low likelihood of occurrence, preconstruction surveys will be conducted to ensure the species remains absent from the site at the time of construction.
Mammals			
Pallid bat *Antrozous pallidus*	BLM-S CDFW-SSC USFS-S WBWG-H	Wide variety of habitats occupied, including grasslands, shrublands, woodlands, and forests --most common in open, dry habitats with rocky areas for roosting. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Roost must	**P** – A CNDDB record for the species occurs within 1 mile of the project site. The record dates to 1895 record for "angels camp" and the actual location of the species is uncertain but could be in the vicinity of the project site. Evidence of bat occupation was not identified on site during surveys (e.g., insect parts, urine stains). The site lacks rocky areas for roosting, but includes crevices, hollow trees and buildings that could provide roost sites. A

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
		protect bats from high temperatures. Bats move deeper into cover if temperatures rise. Night roosts may be in more open sites, such as porches and open buildings. Few hibernation sites are known, but probably uses rock crevices.	preconstruction survey prior to site disturbance will be required to re-confirm that the species has not occupied the site since surveys were conducted for this study.

/a/ All information from CDFW, CNDDB Rarefind 5 and CDFW Wildlife habitat relationship system unless otherwise specified. All plant habitat descriptions from CNDDB Rarefind 5 unless otherwise specified.

/b/ Likelihood of Species Occurrence Key:

Occupied (O) – The species is present on the site.

Unlikely to occur (U) – The species is unlikely to occur on site.

Potential to occur (P) - The species has the potential to occur on site.

Status key:

State of California

CT: California endangered species act listed threatened
CE: California endangered species act listed endangered
CR: California endangered species act listed rare
SCT: California endangered species act Candidate for listing as threatened
SCE: California endangered species act Candidate for listing as endangered
FPS: Fully protected species – California Fish and Game Code
CDFW-WL: CA Dpt. of Fish and Wildlife Watch List
CDFW-SSC: CA Dpt. Fish and Wildlife Species of Special Concern

S1: Critically Imperiled. Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
S2: Imperiled. Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

CDF-S: California Dpt. of Forestry - Sensitive

United States

CH: Critical Habitat [CH] - project footprint is located within (or near) a designated critical habitat unit - does not necessarily mean that appropriate habitat is present.

FE: Federal endangered species act listed endangered
FT: Federal endangered species act listed threatened
FPE: Federal endangered species act petitioned for listing endangered
FPT: Federal endangered species act candidate for listing threatened
BLM-S: U.S. Bureau of Land Management Sensitive Species
USFWS BCC: United States Fish and Wildlife Service Bird of Conservation Concern
USFS-S: United States Forest Service Sensitive Species
BGEPA: Bald and Golden Eagle Protection Act
NMFS-SSC: National Marine Fisheries Service Species of Special Concern

Other Organizations

Western Bat Working Group High Priority (WBWG-H)
Western Bat Working Group Medium Priority (WBWG-M)
Western Bat Working Group Low-Medium Priority (WBWG-LM)

International Union for Conservation of Nature-(IUCN)
- Vulnerable (IUCN-V)
- Near Threatened (IUCN-NT)
- Endangered (IUCN-E)

California Native Plant Society (CNPS) - California Rare Plant Ranking System
- List 1B: Rare, threatened, or endangered in California and elsewhere
  - 1B.1 Seriously endangered in California
  - 1B.2 Fairly endangered in California
  - 1B.3 Not very endangered in California
  - 4.2 Of limited distribution or infrequent throughout a broader area in California, status should be monitored, a watch list

Listed/Candidate Species Unlikely to be Present

The following State and/or Federally Listed Species were determined *Unlikely to be Present:*

Chinese camp brodiaea (Brodiaea pallida)

The flower is state listed endangered, federally listed as threatened, and a California Native Plant society List 1B.1 plant (seriously endangered in California). It inhabits vernal streambeds, often serpentinite, cismontane woodland, Valley and foothill grassland. The flower blooms from approximately May to June. The nearest CNDDB record is nearly 12 miles from the project site. The site lacks the species' preferred serpentine soils. The species was not present during surveys conducted during the species' blooming period. It is unlikely to occur on site.

California tiger salamander (Abystoma californiense) - CTS

CTS is state and federally listed as threatened and is on the California Department of Fish and Wildlife (CDFW) watch list. The CTS is commonly found in Cismontane woodland in association with meadows and seeps, riparian woodlands, Valley and foothill grasslands, and vernal pool wetlands. The species requires underground refuges, especially ground squirrel burrows in association with vernal pools or other seasonal water sources for breeding. The nearest CNDDB record is 17± miles from the project area. The site lacks significant numbers of rodent burrows that the species relies on for refuge given extensive hardscape on site. Rodent burrows existing on site are in exposed, relatively steep, grassland areas away from wetlands. The species was not present during surveys and is considered unlikely to occur.

California red-legged frog (*Rana draytonii*)

The species is federally listed as threatened and is a California Department of Fish and Wildlife Species of Special Concern. The species prefers quiet pools of streams, marshes, and occasionally ponds; lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emerging riparian vegetation. 11-20 weeks of permanent water and access to estivation habitat are necessary.

The nearest CNDDB record for the species is 15± miles from the Project site. The on-site ponds (Forebay and Flocculant settling pond) hold water deep-enough to support the species. There is minimal vegetative cover immediately adjacent to both ponds to provide cover. Flushing and the addition of chemicals to the settling/flocculant pond makes it unsuitable habitat for the species – a survey of 100% of the flocculant pond identified zero animal species, likely due to the presence of chemical use. A daylight survey of 100% of the forebay in September 2020 revealed more than 20 bullfrogs including adults and subadults and no red-legged frogs. Given the high concentration of bullfrogs in a limited area, absence of CRLF and high survey coverage of the forebay, CRLF are not expected to occur.

A review of the *History and Status of the California Red-Legged Frog* (*Rana draytonii*) *in the Sierra Nevada California, USA* (Barry and Fellers 2013) confirms that the project site and surrounding area is not currently known to support CRLF. The nearest historical record, in Vallecito, re-surveyed in 1999 identified only bullfrogs. The study does, however, reference Angels Camp and CRLF indirectly, as follows:

> *Finally, popular accounts and Internet sources commonly cite the humorist Mark Twain's 1865 allegorical tale of "The Celebrated Jumping Frog of Calaveras County" as evidence that R. draytonii was formerly a well-known Sierra Nevada species, even though the tale offers no clue regarding the title character's identity. Further, R. boylii, an impressive leaper, inhabits several Calaveras County creeks and would seem as likely a candidate for Twain's anuran character if indeed the species' identity was relevant to the story (which it clearly is not). In*

our opinion, Mark Twain's jumping frog is best left in the world of humor and allegory as Twain clearly intended, and we discourage the citation of the tale as evidence of anything but Mark Twain's profound understanding of human nature.

The species is unlikely to occur on the project site.

Delta smelt *(Hypomesus transpacificus)*
Delta smelt are federally listed as threatened and state-listed endangered. They are found in the Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. They are seldom found at salinities > 10 ppt. and are most often found at salinities < 2ppt. The nearest CNDDB record is more than 45 miles from the project area. The site lacks the river habitat necessary to support the species. The on-site drainages are not connected to the Sacramento-San Joaquin Delta in a manner that would allow the species to migrate to the site. The species is not expected to occur.

Bald eagle (*Haliaeetus leucocephalus*)
The species is a state-listed endangered species and is protected pursuant to the federal Bald and Golden Eagle Protection Act. It is also a US Bureau of Land Management sensitive species, a California Department of Forestry sensitive species, a CDFW fully protected species, a USFS sensitive species and a USFWS bird species of conservation concern. The species inhabits lake margin, and rivers for both nesting and wintering. Most nests are within 1 mile of water. The raptor nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Bald eagles roost communally in winter. There are no CNDDB occurrences recorded within 2 miles of the project site, however the species is known to nest within 7 miles of the project site. The site lacks the large old-growth trees adjacent to large water bodies preferred by the species. The on-site treatment ponds are not stocked with fish. The species was not present during surveys. The site is not suitable for breeding or feeding and the species is not expected to occur.

Special Status Species with the Potential to Occur on Site
The following Special Status Species were determined to be present or have potential to occur on site*:*

Tricolored blackbird (*Agelaius tricolor)*
The tricolored blackbird is listed as a California threatened species and petitioned for listing as a federal endangered species. It is a CDFW Species of Special Concern, U.S. Bureau of Land Management Sensitive Species and USFWS Bird Species of Conservation Concern. The species is a colonial, requires open water, protected nesting substrate and foraging area with insect prey within a few kilometers of the colony. CNDDB records for the species occur within 1.5 miles of the project site. The WTP lacks necessary nesting substrate in combination with foraging habitat (i.e., lacks cover in association with open water at the Water Treatment Plant). The species was not located during surveys at the WTP and is not expected to occur at the WTP.

However, potential for the species to occur exists 350± feet west of the project's access road in the vicinity of the proposed new water line. Suitable habitat is found at small pond. The pond includes nesting substrate (cattails) adjacent to suitable irrigated grassland foraging habitat. Multiple site visits from the project access road failed to identify tricolored blackbirds, but access closer to the pond was restricted and absence could not be confirmed. Nesting tricolors, if present, could be disturbed indirectly from noise and construction equipment during waterline construction. The species was not identified during project surveys; however, access to the off-

site pond habitat was restricted and species absence could not be confirmed. Due to the potential for the species to nest within 350 feet of a project construction area, mitigation to address potential impacts to this species is included as follows:

Avoidance and Minimization Measure BIO-1: Tricolored Blackbird
If the landowner (encompassing waterline properties) prohibits access for biological surveys of the on-site pond and adjacent grasslands near the Project's entry road, waterline construction shall not occur between March 1st and September 30th of the construction year to avoid nesting tricolored blackbirds (i.e., presence is assumed). The September 30th end date may be altered upon a site survey by a qualified biologist that demonstrates the species has left the parcel. Alternatively, should the landowner grant access to the pond and adjoining grasslands for biological surveys, **Mitigation Measure BIO-2** shall apply. If nesting tricolored blackbirds are present, then waterline construction shall be prohibited between March 1st and September 30th (except as otherwise described herein). If tricolor blackbirds are absent, then construction may begin so long as the provisions of **Mitigation Measure BIO-2** are observed.

Oak titmouse (*Baeolophus inornatus*)
The species is a USFWS bird species of conservation concern. It inhabits oak woodlands and is a cavity nester. There are no CNDDB records in Calaveras County for the species, but it is known to occur in the County. The site provides suitable habitat (oak woodland). The species was not identified on the Project site during surveys, although ample habitat is present. Preconstruction surveys will ensure that the species is not nesting on the Project site prior to commencing construction. Occupied nest disturbance for this species is a potentially significant adverse impact. The following mitigation measure is proposed to avoid any potential impacts:

Avoidance and Minimization Measure BIO-2: Preconstruction Surveys Birds
Prior to construction occurring between February 1st and August 30th (e.g., staging, excavation, ground disturbance, or vegetation removal) a preconstruction survey for nesting birds will be conducted by a qualified biologist in accordance with the CDFW guidelines and a no-disturbance buffer will be established, if necessary.

If equipment staging, site preparation, vegetation removal, grading, excavation or other project-related construction activities are scheduled during the avian nesting season (generally February 1 through August 30), a focused survey for active nests would be conducted by a qualified biologist within 15 days prior to the beginning of project-related activities. Surveys shall be conducted in all suitable habitat in the BSA.

If an active nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest estimated. No additional measures need be implemented if active nests are more than the following distances from the nearest work site: (a) 300± feet for raptors; or (b) 75± feet for other non-special-status bird species. If active nests are closer than these distances to the nearest work site and there is the potential for destruction of a nest or substantial disturbance to nesting birds protected pursuant to the MBTA due to construction activities in the opinion of a qualified biologist, the biologist will prepare a plan to monitor nesting birds during construction and submit it to the CDFW for review and approval. Disturbance of active nests shall be avoided to the extent possible until it is determined that nesting is complete, and the young have fledged.

Mitigation Monitoring BIO-2: The required mitigation measure will be incorporated into the project bid package and contract. Surveys will occur within 15 days of commencing

construction that occurs between February 1st and August 30th. The measure is the responsibility of the construction contractor and project biologist.

Proper implementation of the preceding is expected to minimize or avoid impacts to the species to a level of less than significant.

Lawrence Goldfinch (*Carduelis lawrencei*)
The species is a USFWS bird species of conservation concern. It is uncommon in foothills surrounding Central Valley April through September. Breeds in open oak or other arid woodland and chaparral, near water and typical habitats include valley foothill hardwood, valley foothill hardwood-conifer. There are no CNDDB records of the species in Calaveras County. The species was not identified during surveys; however, suitable habitat (oak woodland near water) exists on site to support the species. Preconstruction surveys will ensure that the species (nesting) continues to be absent from the Project site prior to commencing construction as follows:

Avoidance and Minimization Measure BIO-1: Preconstruction Surveys Birds

Proper implementation of the preceding is expected to minimize or avoid impacts to the species to a level of less than significant.

Yellow-billed magpie (*Pica nuttallii*)
The species is a USFWS bird species of conservation concern. It is a common, yearlong resident of the Central Valley, and inhabits valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, orchard vineyard, cropland, pasture, and urban habitats. There are no CNDDB records for the species in Calaveras County; however, it may occur at low elevations. The species was not identified during surveys. The Project site has oak woodland habitat somewhat above the normal species range, but it could occur on site in this marginal habitat. Preconstruction surveys will ensure that the species (nesting) continues to be absent from the Project site prior to commencing construction as follows.

Avoidance and Minimization Measure BIO-1: Preconstruction Surveys Birds

Proper implementation of the preceding is expected to minimize or avoid impacts to the species to a level of less than significant

Nuttall's woodpecker (*Picoides nuttallii*)
The species is a USFWS bird species of conservation concern. It is a common, permanent resident of low-elevation riparian deciduous and oak habitats and in the lower portions of the Sierra Nevada. There are no CNDDB records for this species; however, it is documented to occur in Calaveras County. The species was not identified during surveys. However, suitable habitat exists within the live oaks near the on-site ditch and nesting could occur on site in the future. Preconstruction surveys will ensure that the species (nesting) is not present prior to commencing construction.

Avoidance and Minimization Measure BIO-1: Preconstruction Surveys Birds

Proper implementation of the preceding is expected to minimize or avoid impacts to the species to a level of less than significant.

Rufous hummingbird (*Selasphorus rufus*)
The species is a USFWS bird species of conservation concern. It inhabits berry tangles, shrubs, and conifer habitats. There are no rich, nectar-producing flowers nearby. Habitat is very marginal for this species and it was not identified during surveys. However, given the low likelihood of occurrence, preconstruction surveys will be conducted to ensure the species remains absent from the site at the time of construction

Avoidance and Minimization Measure BIO-1: Preconstruction Surveys Birds

Proper implementation of the preceding is expected to minimize or avoid impacts to the species to a level of less than significant.

Other bird species
In addition to the special status bird species noted above, other bird species protected pursuant to state law could or do occur on site (See **Attachment C** for species identified on site during surveys). Occupied nest disturbance for these species is a potentially significant adverse impact. To minimize or avoid potential disturbances to nesting and/or breeding bird species subject to these regulations, the following is proposed:

Avoidance and Minimization Measure BIO-1: Preconstruction Surveys Birds

Proper implementation of the preceding is expected to minimize or avoid impacts to the species to a level of less than significant.

Pallid bat (*Antrozous pallidus)*
The pallid bat is a BLM sensitive species, CDFW species of special concern, USFWS sensitive species and a high priority (threatened) bat listed by the Western Bat Working Group. The species occupies a wide variety of habitats including grasslands, shrublands, woodlands, and forests--most common in open, dry habitats with rocky areas for roosting. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Roost must protect bats from high temperatures. Bats move deeper into cover if temperatures rise. Night roosts may be in more open sites, such as porches and open buildings. Few hibernation sites are known, but probably uses rock crevices.

A record for the species occurs within 1 mile of the project site. The record dates to 1895 record for “angels camp” and the actual location of the species is uncertain but could be in the vicinity of the project site. Evidence of bat occupation was not identified on site during surveys (e.g., insect parts, urine stains). The site lacks rocky areas for roosting, but includes crevices, hollow trees and buildings that could provide roost sites. A preconstruction survey prior to site disturbance will be required to re-confirm that the species has not occupied the site since surveys were conducted for this study.

Disturbing this species during foraging or roosting is a potentially significant adverse impact. The following mitigation measures are proposed to minimize impacts:

Avoidance and Minimization Measure BIO-3: Preconstruction Surveys Suitable Special Status Bat Roosting (or Nursery) Areas & Provisions for Protection, if Identified

- 15 days or less before commencing ground-disturbing activities between April and September of the construction year, a qualified biologist will survey snags, trees, rock crevices and other suitable cavities (i.e., the rhyolite cliffs in the cut bank along the northern end of the creek) and structures in the area for special status roosting bat colonies or bat nurseries.

- If special status bats are not found and there is no evidence of special status bat use, construction may proceed.

If special status bats are found or evidence of use by special status bats is present, CDFW shall be consulted for guidance on measures to avoid or minimize disturbance to the colony or nursery. Consideration will be given to existing conditions surrounding the occupation site (e.g., existing noise and vibrations). Subject to CDFW approval, measures may include, but are not limited to, establishing construction buffers from bat occupation sites and excluding bats from roosts before construction begins. If nurseries for special status bats are discovered, no work will occur within buffer areas until all young are self-sufficient and have left the nursery.

Mitigation Monitoring BIO-3:
The required mitigation measure will be incorporated into the project bid package and contract. A survey will occur within 15 days of commencing construction that occurs between April and September. The measure is the responsibility of the construction contractor and Project biologist.

Avoidance and Minimization Measure BIO-4: Hours of Construction.
Project construction shall be limited to 7:00 a.m. to 7:00 p.m. unless an emergency situation exists.

Mitigation Monitoring BIO-4: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.

Proper implementation of the preceding is expected to minimize or avoid impacts to the species to a level of less than significant.

Common Species/Wildlife Corridors

Activities associated with construction activities (e.g., trash) can entice common and special status species on site. Project materials may provide temporary shelter for animals (e.g., pipes). Open trenches may trap animals during the construction process. To minimize impacts to common and special status species associated with construction activities, the following mitigation measures are proposed:

Avoidance and Minimization Measure BIO-5: Avoid Inadvertent Animal Trapping During Construction
To avoid inadvertently trapping special status or common animal species during construction, all excavated steep-walled holes or trenches more than two feet deep shall be

covered at the end of each working day with plywood or similar material, or provided with one or more escape ramps constructed of earth fill or wooden planks, or equivalent, at each end of the trench. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a tapped animal is discovered, the contractor shall place an escape ramp or other appropriate structure to allow the animal to escape. Alternatively, the contractor shall contact the project biologist or California Department of Fish and Wildlife for assistance. Similarly, stored pipes or other materials providing potential cover for animals will be inspected prior to installation or use to ensure that they are unoccupied.

Mitigation Monitoring BIO-5: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction

Avoidance and Minimization Measure BIO-6: Food and Trash Disposal During Construction

All food and food-related trash will be enclosed in sealed trash containers at the end of each workday and removed completely from the construction site every day to avoid attracting wildlife.

Mitigation Monitoring BIO-6:

The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction contractor.

Avoidance and Minimization Measure BIO-7: Environmental Awareness Training

Construction bid packages and contractual requirements shall include a requirement for tail-gate training by the project's designated qualified biologist and cultural resource professionals. All contractors involved in site development and environmental specialists will attend a mandatory Environmental Awareness Training prior to any site disturbances. The program will address proper implementation of minimization and avoidance measures contained herein including, but not limited to:

- Nesting birds
- Avoiding inadvertent animal trapping
- Site maintenance
- Controlling invasive species
- Handling leaks and spills
- Fencing environmentally sensitive areas
- Native Oak Tree Protection measures (avoiding driplines, no equipment or materials storage in driplines, avoid cutting oak roots, avoid equipment damage to limbs, trunks, and roots of oaks trees; do not attach signs, ropes, cables or other items to trees)
- Cultural resources training to inform construction personnel of the types of cultural resources they may encounter, the laws protecting those resources, and the standard protocols to be implemented.
- Hazardous materials response

Mitigation Monitoring BIO-7: The required mitigation measure will be implemented throughout project construction. The Project Biologist (or Project Archaeologist) shall have the authority to stop work or remove any construction worker on site that has not completed training. The measure is the responsibility of the construction contractor.

During long-range plant operations, the majority of the project site will continue to be fenced. The intermittent drainage will remain unfenced and continue to provide a wildlife movement corridor. A 140± foot portion of the Union Ditch will be culverted and the adjacent area fenced. This portion of the ditch has minimal cover vegetation. Bullfrogs inhabit the ditch. Upon culverting this section of ditch, wildlife will continue to be able to follow the open ditch downstream. Given the developed and paved surroundings of the water treatment plant adjacent to the ditch section to be culverted, the value of this small section of ditch to wildlife is considered minimal and its removal is not expected to result in a significant adverse impact to wildlife movements—a less than significant impact.

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

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

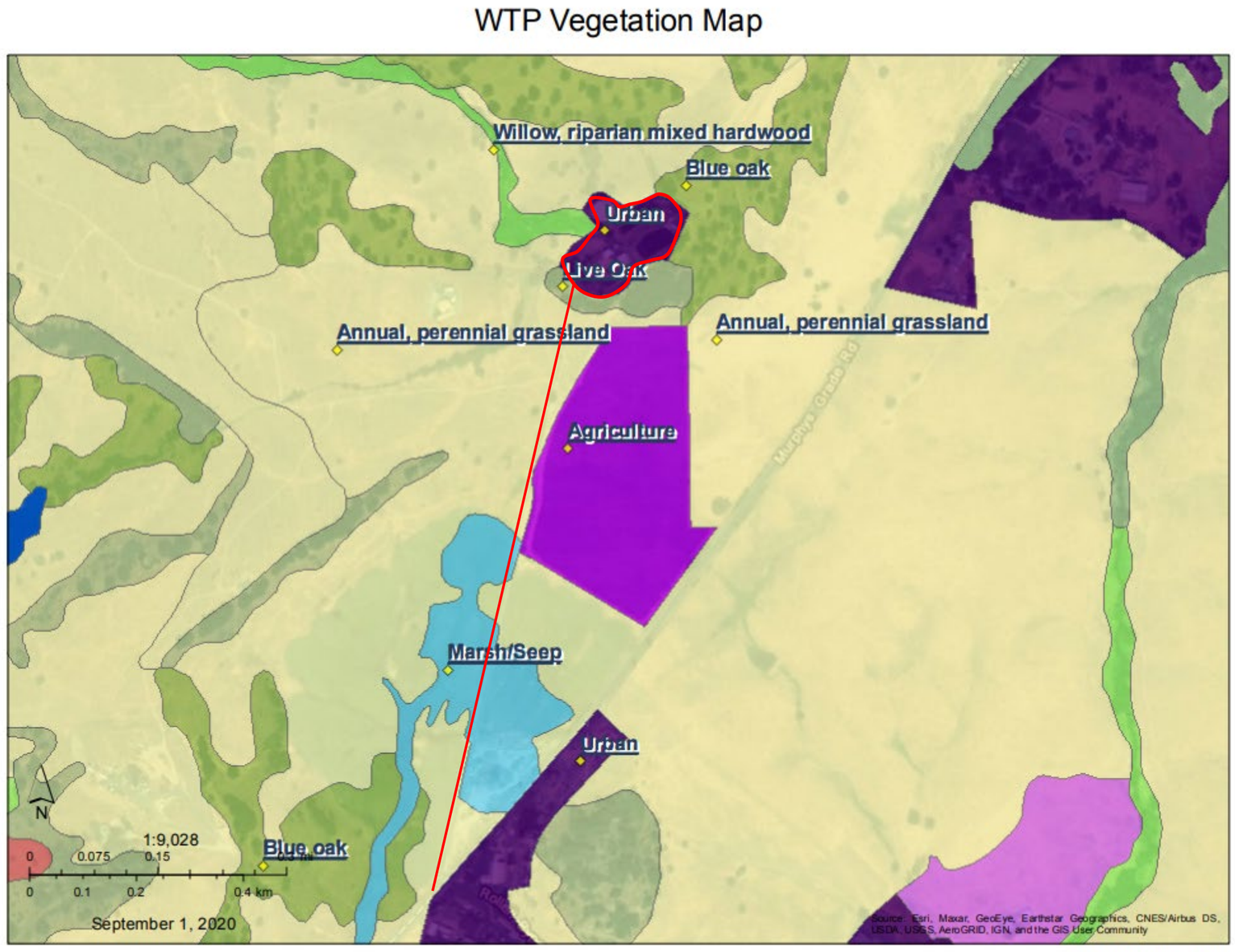
Less Than Significant with Mitigation Incorporated

Natural communities on site are identified in **Figure 13**. The relative quantity of each is included in the following table.

Table 4: Habitat within Project Footprint (Including Waterline)

Habitat Type	% of Project	Portion of Project
Urban	80	100% water treatment plant
Live oak (blue oak, foothill pine)	4	waterline
Annual perennial grassland (annual grassland)	12	waterline
Marsh/seep (Fresh emergent wetland)	4	waterline
Willow, riparian, mixed hardwood (Valley foothill riparian)	0	Indirect impacts off-site
Total	**100**	

Figure 13: Water Treatment Plant Vegetation Map



Oak Woodlands
As illustrated, a small portion of the proposed new water transmission line will pass through a stand of live oaks and blue oaks within a blue-oak foothill pine habitat.

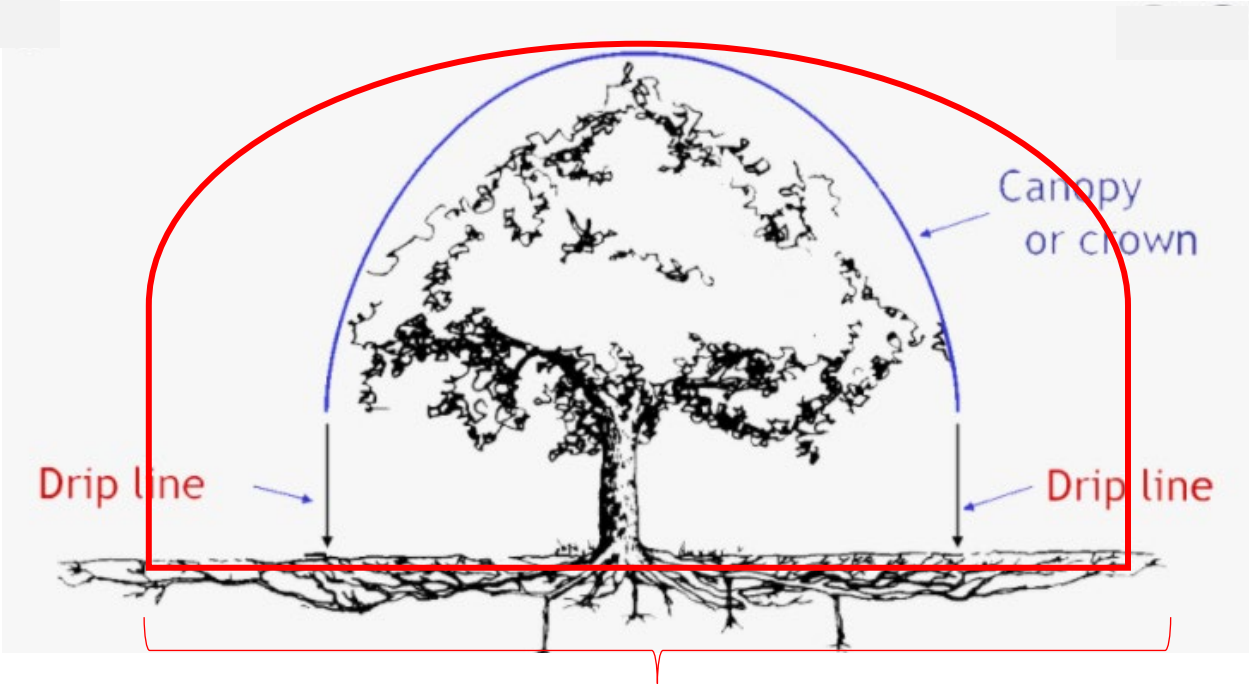
Pursuant to Public Resources Code Section 21083.4, the conversion of oak woodlands is considered a significant adverse impact pursuant to CEQA. While cities are exempt from these requirements, the project is in the County and, therefore, is subject to PRC 21083.4.

It is anticipated that up to 7 oaks exceeding a 5" diameter at breast height will be impacted directly by removal (3 trees) and indirectly through root destruction from trenching within an area encompassing 1.5 times the dripline (4 trees)--a potentially significant cumulative impact to oak woodlands in accordance with PRC 21083.4. Fewer trees may be removed or indirectly impacted based on final project design. **Attachment B** details the maximum possible number, size, and species, of native oaks with potential to be damaged or removed. **Figure14** identifies the location of these oaks.

Figure 14: Oak Trees with Potential to be Disturbed or Removed for Waterline (1A/B, 2A-C, 3A-F) , Ditch Culverting (4 A-H)

The following mitigation is proposed to address this impact:

Mitigation Measure BIO-8: Oak Tree Protection:
For the purposes of this measure, the Oak Tree Protection Area is the area encompassing the dripline of an oak tree plus ½ that length again (1.5 times the dripline) shown in the following:



Oak Tree Protection Zone 1.5X Dripline

For native oaks to be retained on site:

a) Prior to site disturbance (i.e. issuance of a grading or building permit, vegetation removal, whichever occurs first); applicant shall erect environmentally sensitive area (ESA) exclusionary fencing (e.g., orange safety fencing) encompassing, at a minimum, the oak tree protection zone of all native oaks to be retained on site. Fencing is required only in those areas where work is proposed within 30 feet of the oak tree protection zone (for oaks to be retained). Fencing shall remain in place until site work is complete unless otherwise authorized by the City Planner.

b) No equipment or materials will be parked or stored within the oak tree protection zone.

c) No fill shall be stored or occur within the oak tree protection zone.

d) No soil disturbances shall occur within the oak tree protection zone unless otherwise provided herein.

e) If the City/Contractor requires encroachment into an oak tree protection zone and intends no mitigation requirements for that oak, the City/Contractor shall hire a qualified arborist or

consult with a qualified biologist to identify methods for undertaking activities within the oak tree protection zone if necessary to ensure the long-term survival of the oaks (e.g., boring rather than trenching for utilities). The City has the discretion to waive requirements for an arborist / biologist where construction methods will comply with those identified in the publication: *Protecting Trees During and After Construction* - UC Cooperative Extension in the opinion of the City Planner.

f) Utility or other trenching or soil disturbances (including fill) within the oak tree protection zone is prohibited unless no other feasible alternative exists. If unavoidable, work shall be accomplished per the recommendations of the individual identified in paragraph e.

g) No grading or grade changes will occur in the oak tree protection zone. If unavoidable, work shall be accomplished under the supervision and per the recommendations of the individual identified in paragraph e.

h) Irrigated landscaping shall not be installed within the oak tree protection zone.

i) Tree trimming, grass cutting, shrub removal as necessary to separate fuels and maintain wildland fire safety is permitted within the oak tree protection zone.

Mitigation Monitoring BIO-8. Prior to commencing site disturbance, the City Planner shall verify that all ESA fencing has been installed in compliance with this condition. The preservation of oaks in oak tree protection zones will be implemented throughout Project construction and the life of the Project. The measure is the responsibility of the Project Proponent / Contractor. Compensation in accordance with the City's Oak Tree and Heritage Tree ordinance is required for encroachments into driplines of oaks in the oak tree protection zone where such encroachment is likely to result in shortening the lifespan of the tree.

Calaveras County does not have an oak tree preservation/compensation ordinance. In lieu of that, the City will implement the City's Oak and Heritage Tree Preservation Ordinance (Angels Municipal Code Chapter 17.64) required oak tree compensation as mitigation for removing or degrading 7 native oak trees (see *paragraph d* for a detailed discussion). Per **Attachment B**, mitigation will be within the following range dependent upon final design:

a) 12-26 one-gallon native blue and live oak trees to be replanted on site, and/or
b) 75.4" – 287.8" Total tree diameter at breast height (TDBH) X the cost of a 5-gallon native blue or live oak tree for mitigation fees

Mitigation Measure BIO-9: Oak Tree Replanting/Mitigation

A. Prior to commencing site disturbance, a final tree removal / disturbance count shall be prepared by a qualified biologist to establish the size of trees to be removed or where encroachment within the oak tree protection zone will occur based on final design. "Disturbance" shall be assumed if trenching or similar impact will occur in the oak tree protection zone.

B. Within one year of commencing project construction, the City shall provide one or a combination of the following to mitigate for the removal of native oak trees of 9" Tree Diameter at Breast Height (TDBH) or greater in size in accordance with Angels Municipal Code Chapter 17.64:

i. Re-plant on-site native oak trees of the same genus as those removed at the following ratios

Tree type/size	Ratio	Replacement size	Replacement type/a/
Native oak trees up to, but not including 24" dbh	2:1	1 gallon	Same species as removed (blue or live oak)
Native oak trees 24" dbh or larger	5:1	1 gallon	Same species as removed (blue or live oak)

/a/ Native replacement species may be allowed only with review and approval of the project biologist

ii. Alternatively pay a fee to the City in an amount established pursuant to Chapter 17.64 Guidelines based on the total TDBH (inches) of native oak trees removed or disturbed. The total fee shall be the total TDBH X the cost of a 5-gallon tree of the same species. The cost may be calculated using a wholesale cost.

If a combination of replanting and fee payments are used, fees shall be estimated based on the percentage of trees planted on site versus the percentage of trees remaining to be planted. For example, if 60 trees are required to be planted on site and 30 are planted on site (50% of the 60 trees required to be planted on site), then the total oak tree mitigation fee calculated under paragraph B(i) will be reduced by 50%.

C. Oak tree replanting shall occur on site in areas approved by a qualified biologist or arborist. Planted oaks shall be drip-irrigated and mulched (or equivalent) until established.

Mitigation Monitoring BIO-9. An annual inspection and report on survivorship of replanted oaks shall be prepared and submitted to the City. Planted oaks shall achieve a survival rate of 70% after 5 years. Should re-planted trees die prior to 5 years at a rate that falls below a 70% survivorship, replacement oaks shall be replanted as necessary to achieve the 70% threshold. Replacement trees shall survive a minimum of 5 years or be replanted until the replanted tree reach 5-year survivorship.

Proper implementation of the preceding measures is expected to reduce the impact to a level of less-than-significant.

Wetlands and Other Waters

Based on a review of the USFWS National Wetlands Inventory (**Figures 15** and **16**) and the California Department of Fish and Wildlife vegetation maps (**Figure 13**), numerous potential wetlands and other waters are tentatively present in the project boundaries. **Table 4** assesses whether each feature is, is not, or may be a wetland or other water of the United States or State.

Figure 15: Overview National Wetlands Inventory Wetlands and Other Waters

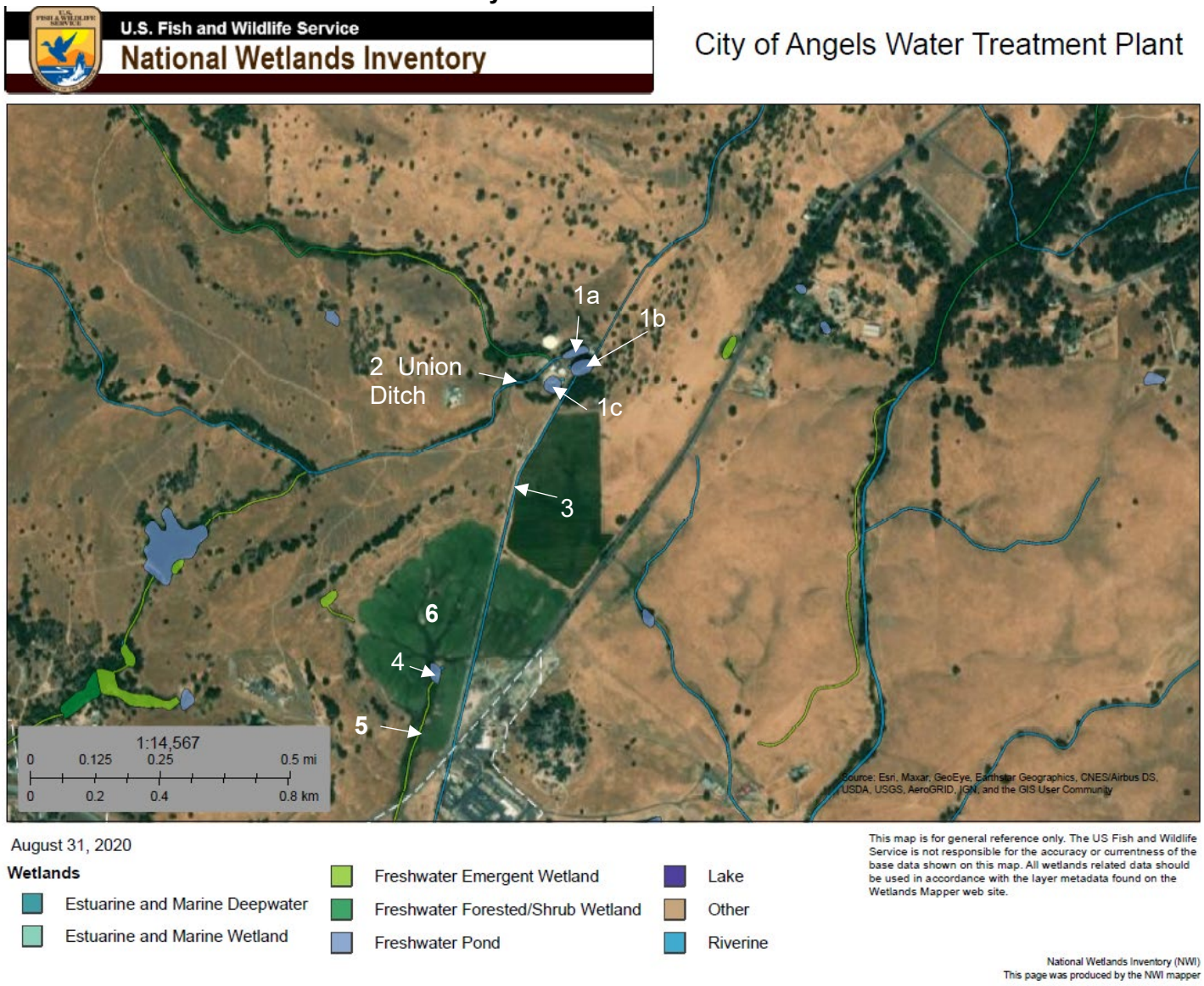


Figure 16: Wetlands and Other Waters - Indirect Impacts

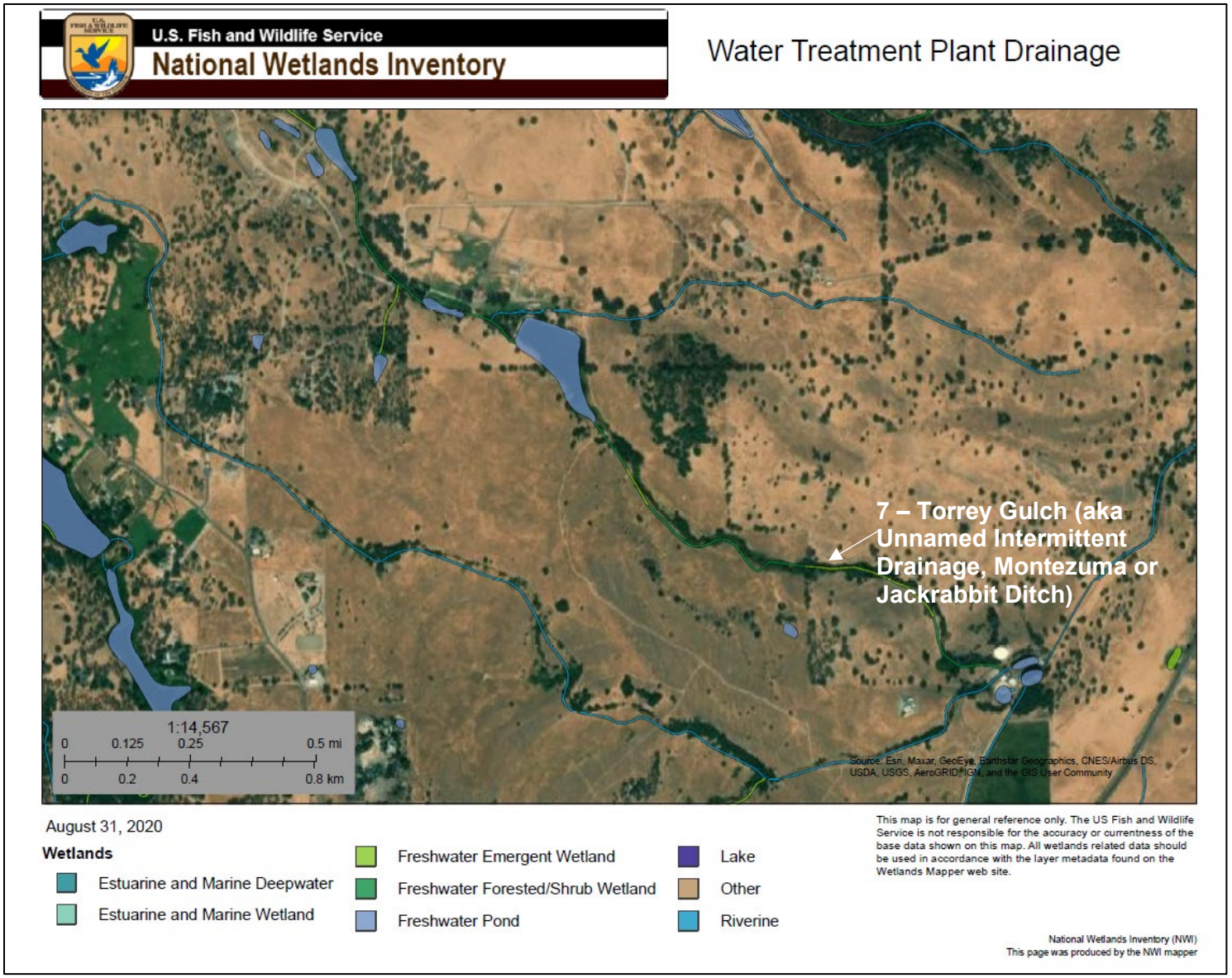


Table 5: Potential Wetlands and Other Waters of the United States and State						
Map Feature #	**CDFW Vegetation Classification**	**Wetland/Other Water Habitat Feature**	**National Wetlands Inventory Classification**	**Location and Description**	**Wetland or Other Water of the United States or State?**	**Potential Impact to a wetland or Other Water from Project?**
1a	Urban	Sediment basin	Freshwater pond	See #7. Water originates from the forebay before entering this feature. The cement lined structure is used to settle sediments and further treat raw water. No plant or animal species are supported by the structure. Backwash from the structure feeds intermittent drainage (Feature #7) but will cease to do so once the project is completed.	See #7. Indirect source of water for backwash supporting Feature #7. Water originates in the forebay. Unlikely to be subject to Section 404 CWA)	No
1b	Urban	Forebay	Freshwater pond	The forebay impounds water from the Utica Ditch and distributes it to features #2, #3, and #7.	Possible jurisdictional wetland (Section 404 CWA); No potential impacts anticipated (except that water from the forebay will not directly feed into Feature #7 without passing through Feature 1a).	No
1c	Urban	Clearwell	Freshwater pond	The clear well does not hold water and does not meet the criteria for classification as a wetland or other water.	No	No

Table 5: Potential Wetlands and Other Waters of the United States and State						
Map Feature #	**CDFW Vegetation Classification**	**Wetland/Other Water Habitat Feature**	**National Wetlands Inventory Classification**	**Location and Description**	**Wetland or Other Water of the United States or State?**	**Potential Impact to a wetland or Other Water from Project?**
2	Annual Grassland	Union Ditch	Riverine	Flowing southwesterly out of the WTP where it ultimately forks off into the Jupiter Ditch and enters a portion of China Gulch to Angels Creek to New Melones and the Stanislaus River. Therefore, the ditch may be considered jurisdictional and subject to Section 404 of the federal Clean Water Act.	Possible jurisdictional wetland (Section 404 CWA)	Yes – Direct impact (section to be culverted). See **Mitigation Measure BIO-9**
3	Grasslands, Marsh/Seep (Freshwater emergent wetland)	UWPA Penstock	Riverine	The aqueduct / penstock sending water to UWPA for power generation is classified as riverine. Although the facility ultimately carries water to Angels Creek, the steel pipeline will not be altered and no impacts to the facility are anticipated regardless of its classification.	No potential impacts anticipated; classification not relevant	No
4, 5	Marsh/Seep (Fresh emergent wetland)	Pond, drainage	Freshwater pond Freshwater emergent wetland	Pond (#4) feeding a USGS blue-line intermittent drainage (#5) on the west side of the aqueduct near the entrance road gate at Murphys Grade Road. Provides potential habitat for tricolored blackbirds.	Possible jurisdictional wetland (Section 404 CWA).	No - Potential indirect impact to possible species inhabiting wetland) – See **Mitigation Measures BIO-1** and **BIO-2**.

Table 5: Potential Wetlands and Other Waters of the United States and State						
Map Feature #	**CDFW Vegetation Classification**	**Wetland/Other Water Habitat Feature**	**National Wetlands Inventory Classification**	**Location and Description**	**Wetland or Other Water of the United States or State?**	**Potential Impact to a wetland or Other Water from Project?**
6	Marsh/Seep (Fresh emergent wetland)	Irrigated pasture surrounding #4 and #5	N/A	Surrounding features 4 and 5. Extending northerly 1,480± feet from the entrance road gate (irrigated pasture area). The area will be disturbed in conjunction with installing the new waterline. It may meet criteria for classification as a wetland or other waters and be subject to Section 404 of the federal Clean Water Act.	Possible jurisdictional wetland (Section 404 CWA)	Yes - Direct (installation of 16" water transmission line adjacent to penstock) – See **Mitigation Measure BIO-9**.

Table 5: Potential Wetlands and Other Waters of the United States and State						
Map Feature #	**CDFW Vegetation Classification**	**Wetland/Other Water Habitat Feature**	**National Wetlands Inventory Classification**	**Location and Description**	**Wetland or Other Water of the United States or State?**	**Potential Impact to a wetland or Other Water from Project?**
7	Valley foothill riparian	Unnamed Intermittent drainage (aka Torrey Gulch, Montezuma or Jackrabbit ditch, Torrey Ditch branch)	Freshwater emergent wetland Freshwater forested / shrub wetland	USGS blue-line intermittent drainage flowing westerly from the Water Treatment Plant in the southwest quarter of Section 22 through Section 21 to a reservoir in the northern half of Section 21 (See **Figure 5**, unnamed tributary and **Figure 16** – Feature #7). The drainage originates as water from the Utica Ditch flowing into the WTP's Forebay which transfers to the flocculant/sediment basin. Presently, Feature #7 relies on releases from filter backwash water from feature 1b and water from flocculation basin cleaning, sedimentation basin cleaning, and backwashing filters at the frequencies shown in **Table 1**. Upon completing project upgrades, raw water will flow directly from the forebay to this feature. Downstream, Feature #7 runoff ultimately enters French Gulch to San Domingo Creek to the South Fork Calaveras River. Therefore, the drainage may be considered jurisdictional and subject to Section 404 of the federal Clean Water Act.	Possible jurisdictional wetland (Section 404 CWA)	Yes – indirect impact. See **Mitigation Measures BIO-10 and 11.**

Direct Impacts

Based on the analysis in **Table 4**, the following features are or may be wetlands or other waters of the United States or State that are expected to be disturbed by the proposed project either through culverting, fill, or temporary soil disturbances. The Union Ditch will be culverted in conjunction with Phase I construction (Alternatively, a concrete span over the ditch may be constructed without culverting). The fresh emergent wetland west of the WTP access road and UWPA penstock will be disturbed by trenching and filling for the new water transmission line – potentially significant adverse impacts. The following mitigation is proposed to address those impacts:

Avoidance and Minimization Measure BIO-10: Prepare Wetlands Delineation/Assessment and, as applicable, Secure federal CWA Section 401 and Section 404 Permits and state Streambed Alteration Agreement 1602

A. Prior to commencing construction on the Water Treatment Plant, prepare a wetlands delineation/assessment prior to culverting the Union Ditch (Feature #2) and, if necessary, addressing any physical alterations to the Sediment basins and unnamed intermittent drainage fed by flushing (Features #1a and #7) . Alternatively, if the ditch remains unculverted, but is instead spanned by a pre-cast concrete structure that does not encroach within the wetland, delineations and permitting may be avoided.

B. Prior to commencing construction to install the new water transmission line from the WTP to Murphys Grade Road: prepare a wetlands delineation/assessment for potential impacts to the fresh emergent wetland (Feature #6).

C. The acreage, location, and method(s) for compensation will be determined during the permitting process in accordance with USACE and CDFW standards, as applicable. The Project will adhere to a "no net loss" standard for waters of the U.S. and waters of the State. Suitable habitat will be restored, enhanced, and/or replaced at an acreage and location and by methods approved by the USACE and Central Valley Regional Water Quality Control Board, as jurisdictionally appropriate. The replacement of waters will be equivalent to the nature of the habitat lost and will be provided at a suitable ratio to ensure that, at a minimum, there is no net loss of habitat acreage or value. The replacement habitat will be set aside in perpetuity for habitat use.

   Compensation may also include purchasing credits from a Corps and/or state or federally approved mitigation bank at a ratio prescribed in the applicable Section 404 as necessary to achieve no net loss of waters of the U.S. For waters of the state, compensation may be through the National Fish and Wildlife Foundation Sacramento District California In-Lieu Fee Program.

***Mitigation Monitoring BIO-10**: The required mitigation measure will be incorporated into the project bid package and contract. Applicable federal Clean Water Act Section 401 and 404 permits and any applicable 1602 Streambed Alteration Agreement shall be secured prior to commencing construction. Mitigation shall be in place no later than one year after site disturbance commences.*

Proper implementation of the preceding will reduce the potential impacts to a level of less than significant.

Indirect Impacts

As identified in **Table 4**, Feature #7 (unnamed intermittent drainage, Torrey Gulch) relies on water releases from the WTP filter backwash, flocculation basin cleaning, sedimentation basin cleaning, and backwashing filters at the frequencies shown in **Table 5**. The WTP improvement project will eliminate discharges into this intermittent drainage thereby eliminating the runoff that supports the drainage's riparian vegetation, species, ponds, and downstream beneficial uses (e.g., horses, cattle grazing) causing their potential destruction and/or degradation, a potentially significant adverse impact.

The filters are backwashed after filtering 6 million gallons (MG), approximately every two weeks during low demand (in generally, the rainy season) or every four days during high demand periods (i.e., hot and/or dry periods). User demand begins to taper off during the fall months reaching the lowest point in the winter. In the spring, demand starts to increase reaching the peak during summer.

The following table identifies the number of releases per month into the drainage (historical backwash frequency) over a five-year period. Fewer releases occur when water use is low and a higher number of releases occur when water use by City customers is high. As indicated, more releases, an average of 5.6 monthly, occur during the warmest driest months of the year in May, June, July, August, September, and October. Fewer releases occur during the cooler, wetter months of the year (January, February, March, November, and December), averaging 2.6 times monthly. Each backwash release averages 200,000 gallons.

Table 6: Number of Water Releases into Drainage/Torrey Gulch Monthly 2013-2017

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TTL
2013	1	3	3	4	5	7	8	8	7	6	4	3	59
2014	3	3	3	3	5	6	6	7	5	5	3	2	51
2015	3	2	3	5	4	4	5	5	5	4	2	2	44
2016	2	2	3	2	4	5	7	6	5	4	3	1	44
2017	2	2	2	2	4	5	8	7	7	3	4	2	48
Average	2.2	2.4	2.8	3.2	4.4	5.4	6.8	6.6	5.8	4.4	3.2	2	49.2
					PEAK MONTHS Average 5.6/month								

Based on the preceding, the following mitigation measures are proposed to address this impact by incorporating raw (untreated) water releases at least 5.6 times monthly into the intermittent drainage in the dry (low precipitation) months of May, June, July, August, September, and October to mimic the water releases that support the intermittent drainage.

It is noted; however, that historical releases from UWPA triggered by hydroelectric plant operation also occur into the drainage. Future changes in hydroelectric plant operation, including cessation of the use, are possible considering the unpredictable demand/price for

"green" energy and the costs to maintain regulatory compliance. An analysis of the potential future impacts of such a project are outside the scope of the study, but recognized here as they may alter the effectiveness of the following mitigation measures unless appropriate CEQA analysis is performed on any future changes to water releases into Torrey Gulch resulting from UWPA operations being altered.

Avoidance and Minimization Measure BIO-11: Neighboring Stream-owner Program
Prior to discontinuing existing back-wash release activities into the adjoining unnamed intermittent drainage (Torrey Gulch), the City will notify landowners along the drainage that the City will be commencing planned water releases. Affected landowners will be given the choice of opting in or opting out of the Neighboring Stream-Owner Program. For those opting in, the City, at the City's expense, will conduct a biological survey and water quality testing on the landowner's parcel(s) and establish baseline biological conditions to be maintained per **Measure BIO-12**. Baseline conditions to be established include:

- Photos (from established photo-points) of existing conditions along the drainage, and as applicable, from on-site stock ponds fed by the drainage.
- Low and high elevations of on-site stock ponds in average precipitation years will be established.
- Plant and animal species (including natives and non-natives) associated with the riparian corridor and any on-site stock ponds.
- The City may, with the landowner's permission, conduct water quality sampling (e.g., Water temperature, turbidity, dissolved oxygen, presence or absence of non-native chemical contaminants).
- The City will enter into a letter of agreement with the landowner stating its goals pursuant to Mitigation Measure BIO-12 and including a statement that future UWPA operations as they relate to Torrey Gulch water releases are not included in the water release agreement but would be subject to future environmental analysis.

***Mitigation Monitoring BIO-11**: Landowners will be notified at least two months prior to discontinuing existing back-wash release activities and given three weeks to opt in or opt-out of this voluntary program. Landowners that do not opt-in within three weeks will be assumed to have opted out of the program. Baseline data shall be collected prior to commencing water releases unless otherwise agreed to by the City and landowner. Baseline data used for **Mitigation Measure 12** shall rely on Google map aerial photos from normal precipitation years to the extent feasible for those that opt-out of the program.*

Avoidance and Minimization Measure BIO-12: Metered water releases in May, June, July, August , September, and October to Intermittent Drainage (Torrey Gulch)
Per Phase 1 improvement plans, a raw water diversion from the Angels Forebay through an existing pipeline to a new weir box will be established provide for raw water releases into the intermittent drainage/Torrey Gulch reflecting historic flows. A meter shall be installed to document water releases. Water releases averaging 200,000 gallons per discharge will occur in May, June, July, August, September, and October. Releases will occur whenever City water use reaches 6 million gallons during these peak months and shall occur no less than an average of 5.6 discharges monthly (34 releases) over the May – October discharge period (i.e., 6,800,000 gallons over 6 months). Discharges may be suspended in response to an emergency declaration by the City of Angels City Council where water supply and/or conservation is essential to public health and safety.

***Mitigation Monitoring BIO-12**: Water releases to the intermittent drainage shall be metered. A monthly report of water releases to the intermittent drainage shall be maintained by the City throughout the life of the Project. A report on documented releases will be made available to downstream landowners annually, upon request.*

*A qualified biologist shall monitor the health of the drainage annually for a minimum of seven years once seasonal releases commence. A baseline study (see **Mitigation Measure BIO-11)** shall occur prior to commencing scheduled releases. Monitoring shall include an annual field survey along the drainage where landowner permission to survey is granted. Surveys should occur in annually on or near the same day. Photo-stations shall be established to document and compare riparian corridor health. Surveys shall include a general species diversity survey. The results of the survey shall be included in the annual water release reports. At the end of the five-year monitoring period, the biologist may recommend adjusting water releases based on findings of documented degradation in riparian corridor health where adjustments are likely to reverse such degradation(s).*

Documented decreases in riparian health may be inferred by significant, measurable, and observable changes to the riparian corridor that are not the result of forces outside the City's control (e.g., wildland fire, state-declared drought emergency, herbicides used in non-compliance with label directions, flash flooding, natural biological changes in the habitat's development, introduced non-native species, increasing or decreasing the average daily temperatures in the County). For the purposes of this monitoring provision, "significant" shall mean more than a 10% decrease (or increase) in a measurable parameter from original baseline measures taken indicating an adverse biological change. Parameters to be measured may include water temperature, air temperature, tree canopy cover, plant and animal species diversity (including non-native and invasive species), turbidity, dissolved oxygen, presence or absence of non-native chemical contaminants.

Except as provided for in the following paragraph, adjustments may include re-timing scheduled water releases (e.g., same amount over a 7-month period or the release of less water, more frequently). However, total water releases may not be decreased from the historical amounts established here without an addendum to this environmental study. Total water releases may be increased up to 10% without an addendum to this environmental study. Water releases exceeding 10% of the amounts established herein shall require an addendum to this environmental study.

If ongoing monitoring identifies degradation in the drainage corresponding to the cessation or significant reduction of water releases by UWPA, those changes will be documented and the timing of altered UWPA operations shall be noted. These changes include direct or indirect changes to the intermittent drainage associated with UWPA raw water releases into the drainage as part of its hydroelectric power plant operations and use of the drainage as an emergency spillway. The City is not responsible for mitigating impacts that may reasonably be associated with UWPA adjustments to its water releases into the drainage so long as the City is maintaining and documenting City water releases consistent with the City's historic water release levels pursuant to this condition. Should potential degradation of the drainage begin only after UWPA alterations to its water releases into the drainage as documented by monitoring pursuant to this condition, they shall be assumed to be associated with UWPA altered operations unless biological evidence clearly indicates otherwise.

Proper implementation of the preceding will reduce the potential impacts to a level of less than significant.

In addition, construction activities could result in erosion and sedimentation of the drainage degrading water quality and species habitat – a potentially significant adverse impact. The following measures are proposed:

Minimization Measure BIO-7: Environmental Awareness Training

Avoidance and Minimization Measure BIO-13: Erosion Control Plan/Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)
Prior to commencing site disturbance:

- The Contractor shall prepare an Erosion Control Plan for City review and approval. All soils disturbed by grading shall be reseeded or hydromulched or otherwise stabilized 48 hours in advance of a rain event. A likely rain/precipitation event is any weather pattern that is forecasted to have a 30% or greater chance of producing precipitation in the project area. The discharger shall obtain likely precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at http://www.srh.noaa.gov/forecast). A qualifying rain event is one that produces 0.5 inch or more of precipitation within a 48 hour or greater period between rain events. Emergency erosion control measures shall be used as reasonably requested by the City.
- Submit to the State Water Resources Control Board Storm Water Permitting Unit, a Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit - California's National Pollution Discharge Elimination System (NPDES) general permit for construction related storm water discharges for the disturbance of one acre or more. Disturbances of less than one acre may also require an NOI for coverage under the NPDES General Permit for construction-related storm water discharge and the State Water Resources Control Board Permitting Unit shall be contacted for determination of permit requirements. Commercial and Industrial developments may require an NOI even if less than one acre is to be disturbed. Obtain coverage or an exemption from these requirements. [Federal Water Pollution Control Act, Section 401, California Clean Water Act]. The permit may include preparation of a Stormwater Pollution Prevention Plan (SWPPP).

***Mitigation Monitoring BIO-13**: The required mitigation measure will be incorporated into the project bid package and contract. Erosion control plan to be completed prior to October 15th. NOI/NPDES to be secured prior to ground disturbance. Implemented and maintained throughout project construction. The measure is the responsibility of the construction contractor.*

Avoidance and Minimization Measure BIO-14: Install Barrier /Silt Fencing to Protect Water Quality
Prior to implementing staging, construction, or ground disturbing activities:

Install temporary silt fencing, fiber rolls, or equivalent erosion and sediment control devices as necessary to protect water quality. Silt fencing or other materials, as required, will be installed consistent with the applicable water quality requirements specified in the Project's Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP). Fencing or other erosion control materials or devices

shall be shown on the final construction documents. These areas will be monitored by the project manager throughout construction.

***Mitigation Monitoring BIO-14**: The required mitigation measure will be implemented prior to ground disturbance and maintained throughout project construction. The measure is the responsibility of the construction contractor.*

Proper implementation of the preceding is expected to minimize or avoid impacts to water quality to a level of less than significant.

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

Less than Significant with Mitigation Incorporated.
Angels Municipal Code (AMC) Chapter 17.64 is the City's Oak Tree and Heritage Tree Preservation Ordinance (Tree Ordinance). It recognizes the importance of native oaks and certain other heritage trees as having both biological and aesthetic values. Extensive oak tree removal would reduce habitat for birds and small mammals, eliminate shade and foraging areas for deer and other common species. Elimination of this habitat contributes, incrementally, to the overall impact of oak woodland removal, a potentially significant adverse cumulative impact.

Per the City's Oak Tree and Heritage Tree Preservation Ordinance, all native oak trees on site were measured in inches at 4 feet above the ground (breast height). Results of the tree inventory are found in **Attachment B**. As discussed in paragraphs b and c, the City's Oak Tree and Heritage Tree Preservation Ordinance is being applied to address the potential impacts to oak woodlands described in paragraph b to offset the impacts to oaks being removed on County lands because the County does not have adopted guidelines. The potential removal of oaks in an oak woodland associated with the project is a potentially significant adverse impact. The following mitigation measures are proposed:

Mitigation Measure BIO-8 Oak Tree Protection

Mitigation Measure BIO-9: Oak Tree Replanting/Mitigation

Proper implementation of the preceding is expected to reduce the potential impact to a level of less-than-significant.

Invasive Species

The introduction of noxious weeds to the site could spread onto neighboring property and decrease the habitat values of adjoining property – a potentially significant adverse impact. The following mitigation measure is proposed:

Avoidance and Minimization Measure BIO-15: Minimize the Spread of Invasive Plant Species
Throughout project construction:

- All hay, straw, hay bales, straw bales, seed, mulch or other material used for erosion control on the project site shall be free of noxious weed [6] seeds and propagules (Food and Agriculture Code Sections 6305, 6341 and 6461).

- All equipment brought to the project site shall be thoroughly cleaned of all dirt and vegetation prior to entering the site to prevent importing noxious weeds and shall be cleaned of all dirt and vegetation prior to exiting the site to prevent exporting noxious weeds. (Food and Agriculture Code Section 5401).

All material brought to the site, including rock, gravel, road base, sand, and topsoil, shall be free of noxious weeds [7] and propagules. (Food and Agriculture Code Sections 6305, 6341 and 6461).

Mitigation Monitoring BIO-15: The required mitigation measure will be incorporated into the project bid package and contract and implemented throughout project construction. The measure is the responsibility of the construction contractor.

Proper implementation of the preceding is expected to minimize the potential impacts to sensitive natural communities to a level of less than significant.

e) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. Neither a Habitat Conservation Plan (HCP) nor a Natural Community Conservation Plan (NCCP) exists for the area within the Project boundaries or the vicinity. Therefore, no impacts associated with such will occur.

Mitigation Measure: None required.
Mitigation Monitoring: Not required

[6] Noxious weeds are as defined in Title 3, Division 4, Chapter 6, Section 4500 of the California Code of Regulations and the California Quarantine Policy – Weeds (Food and Agriculture Code, Sections 6305, 6341, and 6461).
[7] Ibid.

2.5 CULTURAL RESOURCES

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

2.5.1 Background and Setting

An archaeological study was conducted by Patrick GIS Group, Inc. and previously incorporated by reference. The study is available upon request to qualified individuals; however, it is not available to the public for reasons of confidentiality.

The study included pre-field archival research at the Central California Information Center (Information Center) of the California Historical Resource Information System (CHRIS) located at California State University Stanislaus, Native American coordination, a pedestrian survey and preparation of a cultural resources report.

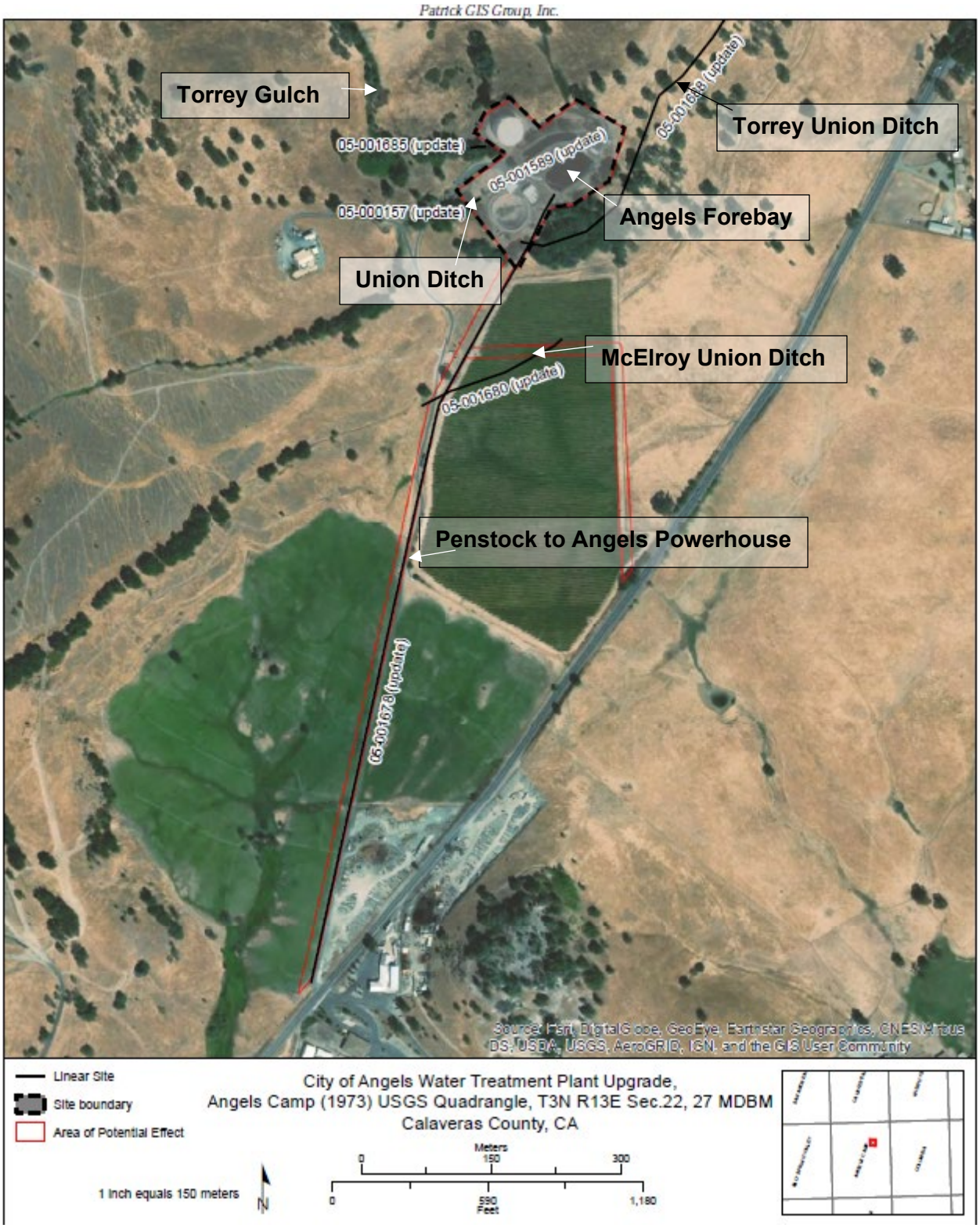
Resources were evaluated in accordance with the California Environmental Quality Act,(CEQA) Sections 21083.2 and 20184.1 as contained in Public Resources Code Sections 2100 et seq. and the Guidelines for implementing CEQA, the California Register of Historical Resources (CRHR), the National Historic Preservation Act (16 USC 470) and 36 Code of Federal Regulations (CFR) 800.4 (a) (d) (1).

Patrick GIS submitted a formal request to the California Native American Heritage Commission (NAHC) for a Sacred Lands File search on October 22, 2018. The NAHC responded on October 30, 2018. The search was negative for sacred cultural resources. Native American tribes were notified of the proposed project by the City of Angels. The results of those consultations are addressed in Section 2.18 (Tribal Cultural Resources).

Water systems, as linear sites, are researched in their entirety to provide an historic context for evaluation. They are often encountered in segments and are therefore often assessed incrementally for integrity (e.g., a ditch system may be important as a whole but a particular segment may lack integrity Linear conveyance systems connect larger complexes consisting of power plants, reservoirs, dams, mills, etc. Assessments relate water systems with the larger historic context of water development in the western United States, one of the most important influences on this region's economic development, politics, and settlement patterns.

Figure 17 identifies the six cultural resources associated with the water treatment plant and **Table 7** evaluates the potential project impacts on these resources.

Figure 17: Cultural Resources



P-05-000157 (update) – **Union Ditch (part of the Gold Cliff Ditch System).** The resource is an historic-era earthen water conveyance ditch, originating from the Angels Forebay spillway via a pipe. The water treatment plant was built in 1953 by PG&E who maintained the facility till 1983 when the City of Angels received ownership. The ditch predates the water treatment plant, but still carries water out of the Angels Forebay spillway, as it has done since the 1850s.

P-05-001589 (update) –**Angels Forebay (Pipe/Johnson Reservoir) and Penstock/Canal,** part of the Union Water Company and the Utica Company System. The forebay was lined with gunite by PG&E in 1966. The water system includes Upper and Lower Angels Canal, Angels Forebay, and Angels Diversion Dam. The water treatment plant was built by PG&E in 1953 at the location of the Pipe/Johnson Reservoir. The penstock pipes and canal in the following photo also are considered part of this complex.

Figure 18: Forebay Penstock Pipes and Canal

P-05-001678 (update) – **Penstock to Angels Powerhouse.** A portion of the penstock running from Angels Forebay downhill southwest to the Angels Powerhouse on Angels Creek. The resource originates from the forebay, Feature 9 of P-05-1589 (previously Pipes/Johnson Reservoir). The penstock is still a single large diameter steel pipe from 1940 as referenced in the previous record. This pipe replaced four redwood pipes from the earlier water system built between 1890 and 1896.The majority of the resource is above ground with only a few small segments buried where it passes under roadways, driveways, and where it enters the forebay.

P-05-001680 (update) –**McElroy Union Ditch**. An historic-era earthen water conveyance ditch. Portions of the ditch have been obliterated by road construction and altered by animal grazing. The resource was observed in the current project area, which is only a very small segment of the entire resource and maintains the same integrity as when recorded in 2013.

P-05-001685 (update) –**Torrey Gulch (aka unnamed intermittent drainage Montezuma, Jackrabbit Ditch, Torrey Ditch Branch).** An historic-era earthen water conveyance ditch. A very small segment of the entire resource is within the project area originating out of the WTP. The resource extends from the spillway from a small penstock pipe on the Angels Forebay and trends generally north of the water treatment plant. Portions of the spillway have been lined with gunite in the boundary of resource P-05- 1589 Locus 1.

P-05-001688 (update) – **Torrey-Union Ditch**. An historic-era earthen water conveyance ditch. The ditch follows the original alignment likely built in the 1850s, with no modern maintenance such as gunite or rebuilding sections that were blown out. Portions of the ditch are used as access to the Angels Canal siphons. These portions of the ditch have been graded for an access road. The ditch is visible to the northeast and southwest of the graded area. Several blowouts were observed during the 2019 recordation.

2.5.2 Analysis

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the state CEQA Guidelines?

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

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

Less Than Significant with Mitigation Incorporated.

The cultural resources study concludes that the Angels Forebay/Pipe Reservoir Complex and its associated connections are eligible for listing on the National Register of Historic Places (NRHP) and possibly at the local, and possibly statewide (California Register of Historic Resources), level of significance. This area is represented as a portion of 05-001589 on **Figure 17**. The remainder of the current water treatment plant is not recommended eligible.

Angels Forebay/Pipe Reservoir Complex and its associated connections are considered eligible for listing as:

> *…a major contributor to the theme of water development in Calaveras County, as the principal surviving example of the Union Water Company and Utica Mining Company system, and as the "mother" of the distribution system, which contains technological information, the diversion dam, upper and lower canals, and Angels Forebay/ Pipe Reservoir complex appear eligible for listing on the National Register of Historic Places*

(NRHP) under Criterion A, association with important events, Criterion C, engineering values, and Criterion D, the possibility to possess data potential.

This determination was made by Davis-King (1993, 2006) and Marvin (2009). Patrick GIS concurs with the determination of eligibility because the resources visually observed in the project area in 2019 appear to maintain integrity and significance as previously evaluated. Some of the ditches and pipes which intersect and/or connect to the Angels Forebay/ Pipe Reservoir complex continue out of the project area, therefore, these are considered segments of a longer resource as they relate to the forebay, and as the conveyance system as it exists as a whole.

Based on the preceding, alterations to the Angels Forebay/Pipe Reservoir Complex and its associated connections are a potentially significant adverse impact under CEQA.

The Angels Forebay/Pipe Reservoir Complex within the project boundaries includes the following structures. An analysis of potential impacts to each structure follows:

Table 7: Cultural Resources Potentially Impacted by WTP Upgrades

Resource	Potential Impacts	Proposed Mitigation
Union Ditch (Part of the Gold Cliff Ditch System) – includes pipe from forebay to Ditch	A portion of the ditch will be culverted. A 2020 addendum to project's cultural resources evaluation was prepared to evaluate the potential impacts associated with culverting a portion of the ditch and concludes that: Proposed impacts from the 2020 project will not have adverse effects an historic property as the resource does not maintain its original construction or alignment in the section as proposed to date	A qualified archaeologist shall record that portion of the ditch to be culverted prior to site disturbance and provide a post-construction addendum after construction is completed. ESA fencing shall be installed on the downstream portion of the ditch (unculverted portion) prior to ground disturbance and remain in place throughout project construction for that portion of the ditch that will remain open.
Angels Forebay (Pipe/Johnson Reservoir) and Penstock/Canal (See Figure 18)	No direct impacts are anticipated. However, construction equipment and activities at the adjacent sediment/flocculant basins could indirectly impact this resource – a potentially significant adverse impact. A meter will be installed within the canal to monitor water releases into Torrey Gulch. This potential impact was assessed in the cultural resources report and no impacts are anticipated.	ESA fencing shall be installed at the toe of the fill surrounding the Forebay prior to ground disturbance and remain in place throughout project construction occurring within 30 feet of the Angels Forebay.
Penstock to Angels Powerhouse	No proposed improvements are planned that will alter this resource. However, in construction equipment and activities could encroach into the resource area	ESA fencing shall be installed along the Penstock (waterline side of the penstock) prior to ground disturbance for waterline

Resource	Potential Impacts	Proposed Mitigation
	during waterline construction resulting in indirect impacts to the resource – **a potentially significant adverse impact.**	construction and remain in place throughout waterline construction. A gap shall be retained at the cattle crossing area.
McElroy/Union Ditch (crosses under UWPA penstock outside WTP)	The proposed new water line will cross and near a small segment of this ditch originating from the Angels Forebay, a **potentially significant adverse impact.** A 2020 addendum to project's cultural resources evaluation was prepared to evaluate the potential impacts associated with this crossing, the addendum states that avoidance may be achieved through installing ESA fencing.	Prior to disturbance, ESA fencing shall be installed on the east side of the berm (See **Figure 21/a/**) to keep construction activity from impacting the original intact ditch west of the berm.
Torrey Gulch (aka unnamed intermittent drainage Montezuma, Jackrabbit Ditch, Torrey Ditch Branch)	No proposed improvements are planned that will alter this resource. However, in construction equipment and activities could encroach into the resource area resulting in indirect impacts to the resource – **a potentially significant adverse impact.**	ESA fencing shall be installed prior to ground disturbance and remain in place throughout project construction occurring within 30 feet of Torrey Gulch. This may occur in conjunction with improvements along the south side of the clear well or during waterline construction.
Torrey-Union Ditch	No proposed improvements are planned in the vicinity of this ditch. Should plans for the waterline be shifted easterly, indirect impacts to the ditch from construction equipment and activities could occur, **a potentially significant adverse impact.**	If waterline installation shifts significantly east in final designs, ESA fencing shall be installed prior to ground disturbance and remain in place throughout project construction within 30 feet of the resource.

/a/ ESA fencing should be placed along the berm on the west side of the access road where 05-001680 originally was aligned. This is indicated by the Black line on Figure 21. The Yellow line is the area that has been previously impacted and the Purple line is the newer erosion ditch created to divert water around the vineyard sometime in the 1960s to 1980s. ESA fencing will keep construction on the east side of the berm and there should be no new impacts to resource 05-001680.

Established Mitigation Measures per the preceding table are as follows:

Mitigation Measure CULT-1: Environmentally Sensitive Area (ESA) Fencing for Cultural Resources

Prior to initiating ground disturbances within 30 feet of the resource, ESA fencing shall be installed as shown:

a. Commencing at the downstream end of the Union Ditch where culverting will terminate. Fencing shall be installed as necessary to protect the remaining resource and protect native vegetation along the ditch.

b. Surrounding the Angels Forebay

c. At Torrey Gulch to protect the existing ditch and native vegetation.

d. At the Torrey Union Ditch if final design extends easterly (for waterline) or southerly (for clear well)

e. On the east side east side of the berm (See **Figure 21**) to keep construction activity from impacting the original intact McElroy/Union ditch west of the berm.

In conjunction with waterline construction, Along the UWPA Penstock and retaining an opening at the cattle crossing unless an alternative equivalent method is identified by the landowner and UWPA.

All ESA fencing shall remain in place until ground disturbance and construction activities are complete. Materials and equipment shall not be stored or parked within the ESA fencing. The City Planner may approve minor deviations in the location of fencing based on consultation with the project biologist and archaeologist.

Mitigation Monitoring CULT-1: The required mitigation measure will be incorporated into the project bid package and contract and implemented throughout project construction. The measure is the responsibility of the construction contractor.

Figure 19: ESA Fencing at WTP – Cultural Resources (Yellow lines = ESA Fencing)

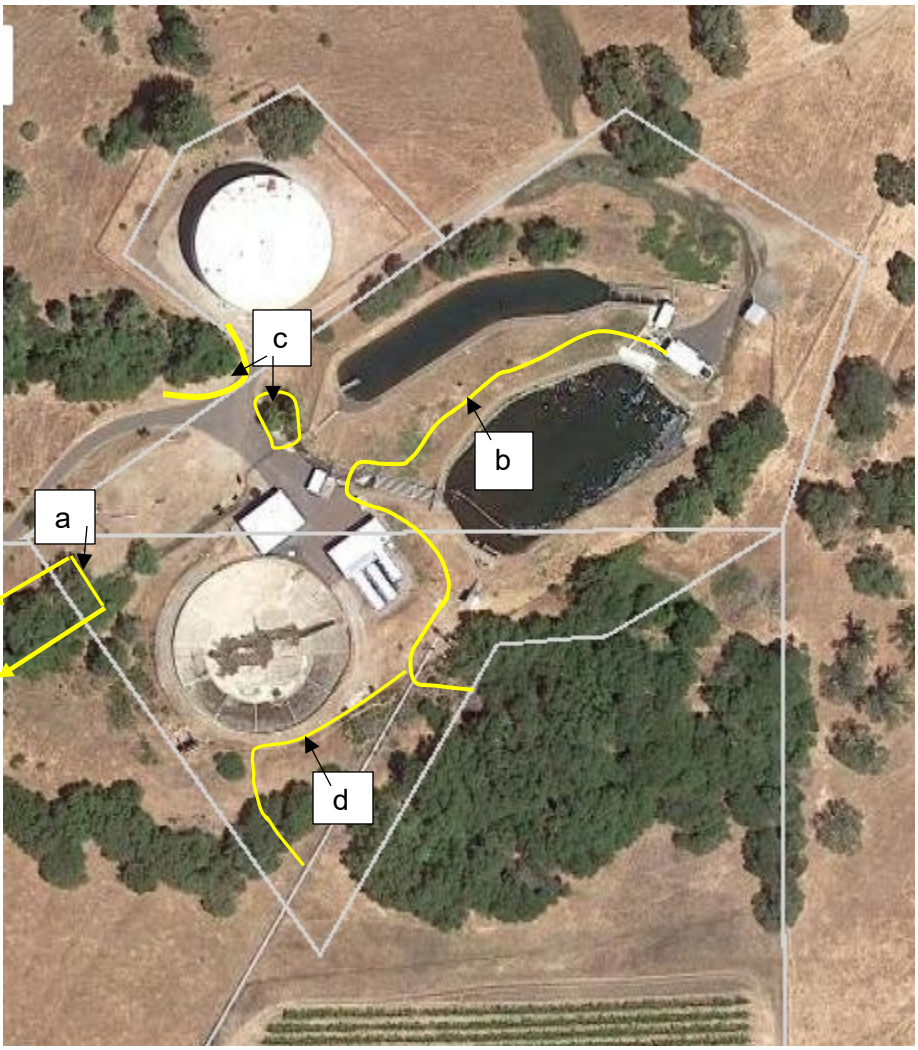
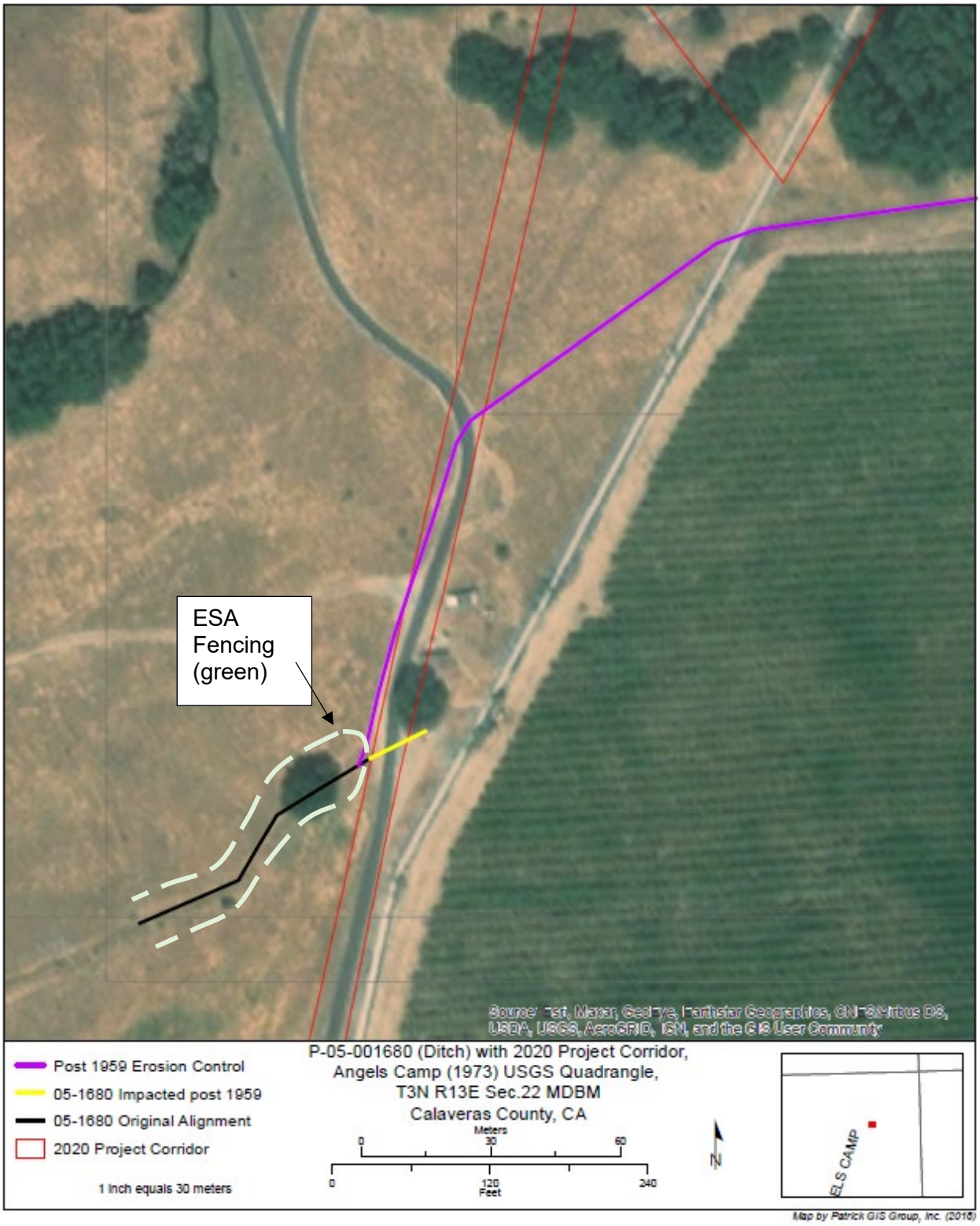


Figure 20: ESA Fencing UWPA Penstock/Gap for Cattle Crossing

Figure 21: ESA Fencing to Avoid Original McElroy/Union Ditch



Mitigation Measure CULT-2: Project Changes/UPWA HPMP
If project changes occur in the final project design and resources which have been determined eligible will be impacted, the Utica Water and Power Authority HPMP Coordinator in tandem with a qualified professional archaeologist/architectural historian shall review the impacts to ascertain whether or not the impacts fall under Exemptions and Project Operations (Activities Exempt from Further Review, Project Roads, and Maintenance) and/or whether the impacts are adverse and require additional mitigation measures. If impacts are not Exemptions per the HPMP, an addendum or amendment to this IS/MND is required.

Mitigation Monitoring CULT-2: The required mitigation measure will be completed prior to site disturbance with post-recordation occurring within one year of completing construction. The measure is the responsibility of the City unless delegated to the construction contractor.

Avoidance and Minimization Measure CULT-3 (BIO-7): Environmental Awareness Training

Proper implementation of the preceding will reduce identified impacts to a level of less-than-significant.

In addition to the forebay complex, the water treatment plant consists of an existing water storage tank, upper plant (three buildings), lower plant (two buildings), abandoned clear well, sedimentation basin, as well as ancillary features (sheds, pipes, tanks, etc.). The water storage tank was installed in 2011 and does not meet the 45-year age threshold for evaluations. The remainder of the facilities do not have build dates, per the City of Angels.

These remaining portions of the facility constructed by PG&E in 1953 and subsequent years is recommended as not eligible for the NRHP or the CRHR under any of the applicable criteria. While this water treatment plant is associated with the historic theme of Water/Community Development in the City of Angels Camp and Calaveras County, it is not a unique representation of that theme (Criterion A/1). The plant is not associated with significant individuals in history (Criterion B/2). The plant is a typical resource, lacking innovation in design or ingenuity. Furthermore, none of the features represent nor embody distinctive characteristics of a type, period, or method of construction, or the work of a master (Criterion C/3). Finally, the plant is a common property type that is unlikely to yield any important information in history that cannot be found elsewhere, thus it is not recommended eligible under Criterion D/4. The plant is not recommended eligible under any local listings.

The potential remains that subsurface resources could be discovered during grading activities associated with project construction – a potentially significant adverse impact. To minimize this potential impact, the following mitigation measures are proposed:

Mitigation Measure CULT-3: Environmental Awareness Training

Mitigation Measure CULT-4: Unanticipated Cultural Resource Discoveries
If a cultural resource is discovered during construction activities, the construction contractor shall comply with the following provisions:

A. The person discovering the cultural resource shall notify the project's designated qualified cultural resource professional by telephone within 4 hours of the discovery or the next working day if the department is closed.

B. When the cultural resource is located outside the area of disturbance, the project's designated qualified cultural resource professional shall be allowed to photodocument and record the resource and construction activities may continue during this process. The area of disturbance is defined to include grading and vegetation removal areas and/or access roads or processing areas plus 100 feet.

C. When the cultural resource is located within the area of disturbance, all activities that may impact the resource shall cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by site's designated qualified cultural resource professional may continue. The project's designated qualified cultural resource professional shall be allowed to conduct an evaluative survey to evaluate the significance of the cultural resource.

D. When the cultural resource is determined to be not significant, the project's designated qualified cultural resource professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the project's designated qualified professional.

E. When a resource is determined to be significant, the resource shall be avoided with said resource having boundaries established around its perimeter by the project's designated qualified cultural resource professional or a cultural resource management plan shall be prepared by the project's designated qualified professional to establish measures formulated and implemented in accordance with Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) to address the effects of construction on the resource. The project's designated qualified cultural resource professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the project's designated qualified cultural resource professional. All further activity authorized by this permit shall comply with the cultural resources management plan.

For the purposes of implementing this measure, a "qualified cultural resource professional" is an individual (e.g., historian or archaeologist) meeting the Secretary of the Interior's Qualification Standards.

A "cultural resource" is any building, structure, object, site, district, or other item of cultural, social, religious, economic, political, scientific, agricultural, educational, military, engineering or architectural significance to the citizens of Calaveras County, the State of California, or the nation which is 50 years of age or older or has been listed on or is eligible for listing on the National Register of Historic Places, the California Register of Cultural Resources, or any local register. Examples of prehistoric resources may include: stone tools and manufacturing debris; milling equipment such as bedrock mortars, portable mortars, and pestles; darkened or stained soils (midden) that may contain dietary remains such as shell and bone; as well as human remains. Historic resources may include burial plots; structural foundations; mining spoils piles and prospecting pits; cabin pads; and trash scatters consisting of cans with soldered seams or tops, bottles, cut (square) nails, and ceramics.

Mitigation Monitoring CULT-4: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the Project proponent/Contractor with input from the project's designated qualified cultural resource professional, if necessary.

No impact is expected to human remains from the project as proposed, based on project studies and consultations. Based on these findings, no adverse impacts are anticipated to any human remains; however, the following is included to address discovery of unanticipated resources:

Mitigation Measure CULT-3: Environmental Awareness Training

Mitigation Measure CULT-5: Human Remains

If human remains, burial, cremation of other mortuary feature are uncovered during construction activities; upon discovery, secure the location, do not touch or remove remains and associated artifacts; do not remove associated spoils or go through them; document the location and keep notes of activity and correspondence. All work within 100 feet of the discovery shall stop until the County Coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission to obtain the Most Likely Descendent (MLD) and follow state law (PRC 5097.9 et seq. and Health and Safety Code 7050.5(c)-7054.1 and 8100 et seq.). No further work or disturbance shall occur within 100 feet until all of the preceding actions, as applicable to the discovery, are implemented and completed. Preserve associated spoils without further disturbance, do not touch or remove remains or associated artifacts, document the location and maintain notes of activity and correspondence. Preservation *in situ* is the preferred treatment of human remains and associated burial artifacts. [Public Resources Code Sections 5097.94, 5097.98 and Health and Safety Code Section 7050.5(c) and Section 15064.5 of the California Code of Regulations implementing the California Public Resources Code, Sections 21000-21177]

Mitigation Monitoring CULT-5: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the Project Proponent/contractor.

Proper implementation of these mitigation measures will reduce the potential impact to a level of less-than-significant.

2.6 ENERGY

VI. ENERGY. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potential significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or alteration.	☐	☒	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiencies.	☐	☒	☐	☐

2.6.1 Background and Setting

Energy used at the Water Treatment Plant includes electricity and fossil fuels to operate treatment plant processes, lighting, heating and cooling buildings, fuel staff vehicles and run the pumps and motors necessary for operations.

CEQA Guidelines Appendix F, Energy Conservation, provides guidance for the evaluation of potential impacts relative to energy use and possible mitigation measures to minimize energy use. The guidelines emphasize avoiding or reducing wasteful, unnecessary, or inefficient energy use during demolition, construction, and operations.

A review of energy reducing activities for water and wastewater treatment plants offered by the USEPA includes a menu of the following:

- Reduce water consumption/increase water efficiency by consumers
- Convert manual meter reading to automatic meter reading (saves consumption of fossil fuels expended by staff visiting each property city-wide)
- Install solar panels to operate lights and/or heating, ventilation and air conditioning systems
- Replace old equipment with new, more efficient, equipment
- Similar activities

2.6.2 Analysis

a) Result in potential significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or alteration.

Less Than Significant with Mitigation Incorporated.

Construction

Energy used during construction includes fossil fuels used by construction equipment and vehicle trips by contractors. Inefficient use of fossil fuels may incrementally contribute to cumulatively significant adverse impacts to energy availability. Implementation of the following mitigation measures incorporating Best Performance Standards, would ensure that equipment uses energy efficiently.

Mitigation Measure Energy 1 (AQ-4): Equipment Emissions – Construction

Mitigation Measure Energy-2: Construction Materials and Recycling

A. Compared to other products in a given product category, select building materials or products for permanent installation on the project that have been harvested or

manufactured in California or within 500 miles of the project site.

For those materials locally manufactured, select materials manufactured using low embodied energy or those that will result in net energy savings over their useful life.

Regional materials shall make up at least 10 percent, based on cost, of total materials value.

If regional materials make up only part of a product, their values are calculated as percentages based on weight.

B. Use salvaged, refurbished, refinished or reused materials for a minimum of 5 percent of the total value, based on estimated cost of materials on the project. Provide documentation as to the respective values. Note: Sources of some reused materials can be found at CalRecycle. See also Appendix A5, Division A5.1, Section A5.105.1 for on-site materials reuse.

Note: Re-use of cement from demolition of the clear well may be used to fulfill all or a portion of this condition.

Mitigation Monitoring ENERGY-2 : The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the Project Proponent/contractor. Provide documentation of the origin, net projected energy savings and value of regional materials.

Proper implementation of the preceding is expected to reduce the potential impacts to a level of less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiencies.

Less than Significant with mitigation.
Construction

Please refer to paragraph a.

Mitigation Measure Energy-1 (AQ-4): Equipment Emissions - Construction

Proper implementation of the preceding is expected to reduce the potential impacts to a level of less than significant.

Operations
The water treatment plant uses an annual average of 197,600± kilowatt hours of electricity at a cost of approximately $16,844 annually. One staff person visits the plant twice daily seven days per week, 365 days per year. Each trip averages 8.5± miles round trip (assuming staff travels from the Wastewater Treatment Plant/City Corp yard to the Water Treatment Plant and back). Therefore, Water Treatment Plant maintenance and operations consume fossil fuels equivalent to approximately 17 miles daily or 6,205± miles annually. Using the City fleet of small trucks and assuming an average of 25 mpg, this translates to 248.2± gallons of gas used annually for trips associated with the Water Treatment Plant. These totals do not reflect added trips to operate generators during Public Safety Power Shut-offs (PSPS) implemented by PG&E due to fire hazard wherein power to the City is shut off for a period of one-to-several days. Trips to the plant are expected to remain at this level post-project.

Energy efficient pumps and motors are being added to the plant in conjunction with the project. These will replace some of the WTP's older, less efficient, pumps and motors. These added pumps and motors are intended to allow for uninterrupted operations in the event of equipment failures and during maintenance operations and primarily will run redundant systems rather than add new processes. However, an overall increase in energy use is anticipated due to the addition of new pumps and motors.

Mitigation Measure Energy-3: Reduce Energy Consumption
The project proponent will demonstrate a reduction in energy consumption for overall plant operations by 15% through *one or a combination* of the following:

a. Prepare a cost/benefit analysis for converting the city's manually-read water meters to an automatic meter reading (AMR) system or equivalent with a focus on converting the oldest meters in the City first (i.e., those in older parts of town that are single and in smaller boxes versus those in more modern subdivisions that occur in pairs and are more easily read). The analysis should identify funding options. The analysis would fulfill 5% of the 15% goal.

b. Install solar panels to power one or more of the following: building lights, heating, ventilation, air conditioning or other devices with a goal of reducing power use by 15% (29,640± kilowatt hours).

c. Upgrade one of the City's least fuel-efficient vehicles with a more fuel-efficient vehicle (or substituting an electric or hybrid vehicle) with a goal of reducing fuel use by 15% (37± gallons annually). This could be accomplished by upgrading a vehicle that averages 20 mpg to one averaging at least 25 mpg or upgrading one averaging 25 mpg with one averaging 30 mpg.

d. Compliance with the 2019 California Energy Code (Building Energy Efficiency Standards) effective January 1, 2020, or as may be amended.

Proper implementation of the preceding is expected to reduce energy consumption during project operations to a level of less than significant.

The proposed project mitigation includes compliance with state energy standards. The City of Angels does not have alternative energy efficiency standards. Therefore, the project is not anticipated to conflict with state or local plans for energy efficiency.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.7 GEOLOGY AND SOILS

VII. GEOLOGY AND SOILS. Would the Project:	Potentially Significant Impact	Less Than Significant with 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 risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☒	☐	☐
f) Directly or indirectly destroy a unique paleontological feature?	☐	☒	☐	☐

2.7.1 Background and Setting

Soil types and characteristics within the project area are identified in the following figure and table.

Figure 22: USDA NRCS Soils Map, August 31, 2020

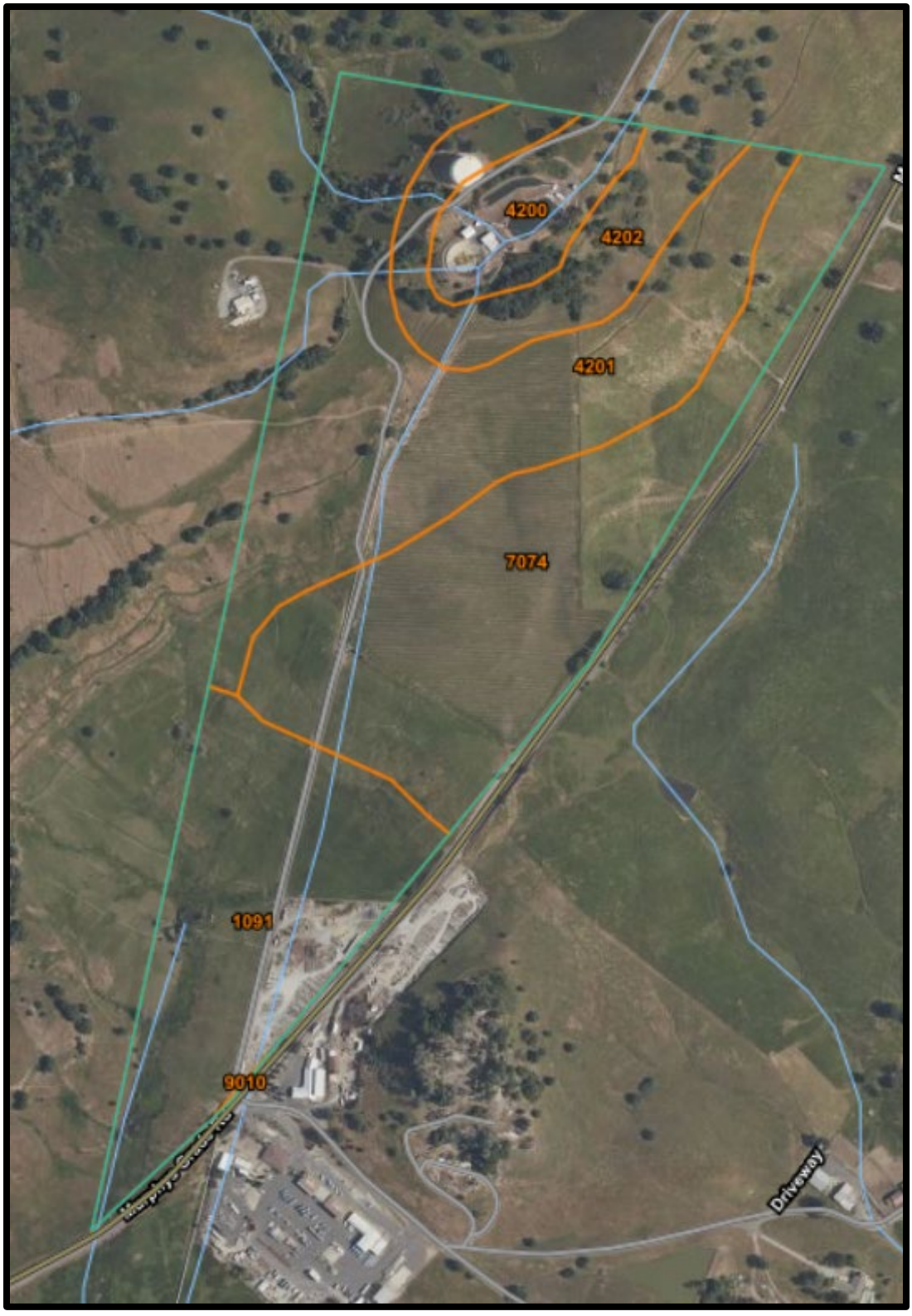


Table 8: On-Site Soil Characteristics

Soil Name	% of Project Location	Characteristics Ratings
1091 Utlic Haploxeralfs-Aquic Dystroxerepts complex, 2 to 8% slopes	10% project area (Portion of water line) and surrounding grazing land (irrigated)	*Parent material:* Mixed alluvium *Farmland classification:* Not prime farmland *Drainage class:* Well drained to Somewhat poorly drained *Erosion (K-Factor whole soil)/a/* – 0.15 (low)
4200 Inks-Angelscreek complex 3-15% slopes	70% project area Majority of the WTP except for the water tank	*Parent material:* Residuum weathered from conglomerate and/or tuff breccia *Farmland classification:* Not prime farmland *Drainage class:* Well drained Erosion (K-Factor whole soil)/a/ – 0.37 (moderate)
4201 Angelscreek-Pentz complex 15-30% slopes	5% (water line), Surrounding grazing land, irrigated	*Parent material:* Colluvium over residuum derived from conglomerate and/or tuff breccia; Colluvium and/or residuum derived from basic tuff *Farmland classification:* Not prime farmland *Drainage class:* Well drained Erosion (K-Factor whole soil)/a/ – 0.24 (low/moderate)
4202 Angelscreek-Pentz complex 30-60% slopes	10% Water storage tank and surrounding grazing land	*Parent material:* Colluvium and/or residuum derived from basic tuff *Farmland classification:* Not prime farmland *Drainage class:* Well drained Erosion (K-Factor whole soil)/a/ – 0.28 (low/moderate)
7074 Loafercreek / Bonanza complex 3 to 15% slope	5% (waterline) and surrounding grazing land, irrigated	*Parent material:* Colluvium over residuum derived from metavolcanics; Residuum weathered from metavolcanics *Farmland classification:* Not prime farmland *Drainage class:* Well drained *Erosion (K-Factor whole soil)/a/* – 0.15 (low)

/a/ Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic

conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

A geotechnical study was prepared for the project and previously incorporated by reference.

2.7.2 Analysis

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

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

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

No Impact.
The project site is not located within a rupture zone of a known earthquake fault per the most recent Alquist Priolo Earthquake Fault Zoning Map/Division of Mines and Geology Special Publication 42[8]. Therefore, potential impacts resulting from earthquake faults and seismic ground shaking are not anticipated.

The area has not been evaluated for liquefaction or landslides by the state[9]. However, based on the soil types present on the site, landslides and liquefaction is not anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

Less than Significant with Mitigation.
The forebay and sediment basins extend across a hilltop which then terraces down for a short distance to the plant's processing buildings and the clear well (**Figure 20**) before dropping again relatively steeply down the remaining south facing hillside slope (**Figure 21**). The proposed replacement water line will follow the south-facing slope for a quarter to one-third of its total distance before reaching relatively gentle slopes continuing to Murphys Grade Road.

Evidence of landslides was not apparent during field surveys. However, given the critical nature of the infrastructure being installed, slope fail or soil instability could result in a significant adverse impact to safety. The following measure is proposed to address this potential impact:

Avoidance and Minimization Measure GEO-1: Geotechnical Study
Avoidance and Minimization Measure GEO-1: Geotechnical Study
Construction shall comply with the provisions included in the geotechnical study prepared for the Project and in compliance with the 2019 CBC, Section 1803 in support of the on-site septic system relocation as reviewed and approved by the City Engineer.

Mitigation Monitoring GEO-1:
The measure is the responsibility of the Project proponent/construction contractor and subject to review and approval by the City Engineer.

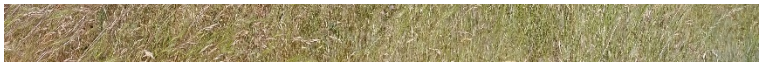
8 https://maps.conservation.ca.gov/cgs/EQZApp/app/ Accessed June 15, 2020.

9 https://maps.conservation.ca.gov/cgs/EQZApp/app/ Accessed June 15, 2020.

Proper implementation of the preceding is expected to reduce the potential impacts to a level of less than significant.

Figure 23: Terrace from Forebay to Lower WTP

Figure 24: Hillside Near Location of Water Line Extension



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

Less than Significant with Mitigation.
As identified in **Table 8**, on-site soils have a low-to-moderate erosion potential. Construction activities will disturb on-site soils creating a potential for eroded soils to be transported into the on- and off-site drainages and ditches– a potentially significant adverse impact. The following mitigation measures are proposed:

Avoidance and Minimization Measure GEO-2 (BIO-13): Erosion Control Plan/Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)

Avoidance and Minimization Measure GEO-3 (BIO-14): Install Barrier /Silt Fencing to Protect Water Quality

Proper implementation of the preceding measures is expected to minimize the impact to a level of less-than significant.

c) Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
d) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact with Mitigation
Soil maps do not identify unstable or expansive soils. Extensive grading and excavations are proposed. A relatively steep slope is associated with the hillside over which a portion of the proposed new water line will be installed – a potentially significant adverse impact given the critical nature of the infrastructure. To minimize this potential impact, the following measure is proposed.

Avoidance and Minimization Measure GEO-1 Geotechnical Study

Proper implementation of the preceding measures is expected to minimize the impact to a level of less-than significant.

e) Would the Project 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?

Less Than Significant Impact with Mitigation. On site soils are identified as well-drained. The proposed project will relocate an existing on-site individual septic system leach field in conjunction with project improvements. The suitability of soils to support the system is not known. Therefore, prior to site disturbance, a geotechnical soils analysis is required as follows to ensure that all or a portion of the septic system can be relocated successfully.

Avoidance and Minimization Measure GEO-1: Geotechnical Study

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

Less than Significant with Mitigation Incorporated. The site does not include unique geologic features. No surface evidence of paleontological resources was observed. However, because subsurface excavations will occur, the potential to discover subsurface paleontological resources could occur. Therefore, the following mitigation measure is included to ensure evaluation and appropriate handling, study, and curation of unanticipated subsurface paleontological discoveries.

Mitigation Measure:

> **Mitigation Measure GEO-4: Paleontological Resources**
> If paleontological resources are encountered during Project construction and no paleontological monitor is present, all ground disturbing activities within 50 feet of the find shall be redirected to other areas until a qualified paleontologist (as determined by the Project's qualified cultural resource professional) can be contacted to evaluate the find and make recommendations. If determined significant pursuant to CEQA and Project activities cannot avoid the paleontological resources, a paleontological evaluation and monitoring plan shall be implemented.
>
> Adverse impacts to significant paleontological resources shall be mitigated, which may include monitoring, data recovery and analysis, a final report, and the curation of all fossil material to a paleontological repository, museum, or academic institution, as appropriate. Upon completion of Project ground-disturbing activities, a report documenting methods, findings, and recommendations shall be prepared and submitted to the paleontological repository.

Mitigation Monitoring GEO-4: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor and qualified paleontologist.

Proper implementation of this measure will result in a less-than-significant impact to paleontological resources.

2.8 GREENHOUSE GAS (GHG) EMISSIONS

VIII. GREENHOUSE GAS EMISSIONS. Would the Project:	Potentially Significant Impact	Less Than Significant with 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?	☐	☐	☐	☒

2.8.1 Background and Setting

The project may contribute to climate change impacts through the release of greenhouse gas (GHG) emissions. The project would generate a variety of GHGs during construction and operation, including several defined by Assembly Bill 32 (AB32), such as carbon dioxide (CO_2), methane (CH_4) and nitrous dioxide (N_20) from the exhaust of equipment and the exhaust of vehicles for employees and construction vehicles. The project also may emit GHGs not defined in AB32, including aerosols from diesel particulate matter exhaust, which are short-lived GHGs, oxides of nitrogen (NO_x) and volatile organic compounds (VOC), which are ozone precursors. Ozone is a GHG. However, unlike other GHGs, ozone in the troposphere is relatively short-lives and is being reduced daily. The project is not expected to emit perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6), which are sometimes released from industrial uses.

Significance Thresholds

Short-term construction and long-term operation of the project would generate emissions associated with global climate change including CO_2, CH_4 and N_20.

Neither the Calaveras County APCD, nor the City of Angels Camp have adopted significance thresholds for GHG emissions. As a result, the City has chosen to rely on the screening criteria included in the *Tuolumne County Regional Blueprint Greenhouse Gas Study (GHG Study)*, a copy of which may be found online at:
https://docs.wixstatic.com/ugd/fe950e_6fa366b85161406ab2acee5174c8b318.pdf
or, a copy may be reviewed at the City of Angels Camp Planning Department offices located at 200 B Monte Verda Street, Suite B, Angels Camp, CA 95222, during regular business hours. Because of the City's proximity to Tuolumne County, it is appropriate for the City to adopt the regional standards included in the GHG Study to analyze what has long been recognized to be a cumulative impact. [10]

The GHG Study presents two sets of screening criteria. If a proposed project either is equal to or less than the project size screening criteria in **Table 9**, below, or the project incorporates all of the measures identified in **Table 10**, below, then the City does not need to perform a detailed GHG emissions assessment.

[10] *See*, CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act (CAPCOA 2008), which is incorporated herein by reference.

Table 9: Project Screening Criteria by Project Size and Type

Industrial	5,000 square feet

The Project (overall) is greater than the project size screening criteria for an industrial project in Table 9—therefore, a potentially significant impact may occur.

Pursuant to the screening criteria and guidelines, the Project Proponent must incorporate all of the measures identified in **Table 10** below or perform a detailed GHG emissions assessment. The City will incorporate the measures identified in **Table 10**:

Table 10: Project Screening Criteria by Project Features

P-1: Project exceeds the California Energy Code requirements by 15 percent based on the 2008 Energy Efficiency Standards requirements, through the installation of energy efficient design, lighting, appliances, or solar photovoltaic panels that provide 15 percent or more of the project's energy needs.
P-2: Project does not include fuel oil as a heating source.
P-3: Project provides dedicated and accessible recycling and green waste bins with instructions/education program explaining how to use the bins, what can go into each bin, and the importance of recycling.
P-4: Project provides designated parking for any combination of low-emitting, fuel efficient and carpool/vanpool vehicles at 10 percent of the total spaces, consistent with the 2010 (now 2016) California Green Building Standards Code. *Note: Given the low traffic volume generated by the project, the efficiency of this measure is negligible, and an alternative measure may be substituted per the California Green Building Standards.*

To satisfy the GHG Study screening criteria, the following mitigation measures are required:

Mitigation Measure GHG-1:
The Project shall:

A. Exceed the California Energy Code requirements by 15 percent based on the 2008 Energy Efficiency Standards requirements or as may be amended, through the installation of energy efficient design, lighting, appliances, or solar photovoltaic panels that provide 15 percent or more of the project's energy needs;

B. Prohibit fuel oil as a heating source;

C. Provide dedicated and accessible recycling and green waste bins with instructions/education program explaining how to use the bins, what can go into each bin, and the importance of recycling; and

D. Implement at least one of the 2016 California Green Building Standards including, but not limited to (Options included in **Mitigation Measure ENERGY-2** may be counted towards fulfilling this measure):

i. Install a shade structure on the staff-occupied building wall exposed to the south (or otherwise receiving the warmest exposure during summer months)
ii. For new paving, use light colored materials with an initial solar reflectance value of at least 30 as determined in accordance with American Society for Testing and Materials (ASTM) Standards E1918 or C1549 for at least 25% of the materials
iii. Use open-grid pavement system or pervious or permeable pavement system for at least 25% of newly paved areas
iv. Newly installed outdoor lighting power shall be no greater than 90 percent of the *Allowed Outdoor Lighting Power. The Allowed Outdoor Lighting Power calculation is specified in Title 24, Part 6, Section 140.7 "Requirements for Outdoor Lighting."*
v. Replace outdated indoor plumbing fixtures with improved water efficiency fixtures.

Mitigation Monitoring GHG-1:
The required mitigation will be assessed during plan reviews submitted to the Planning and Building Department. The measure is the responsibility of the City's contractor.

Proper implementation of the preceding, incorporating all mitigation measures identified in **Table 10,** will reduce the potential impact to a level of less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact.
As noted above, neither the Calaveras County APCD, nor the City of Angels Camp have adopted significance thresholds for GHG emissions.

In light of the fact that the project satisfies the project features screening criteria adopted by the City from the GHG Study, the project will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs, nor will it impede any efforts to reduce GHG emissions at the federal, state or local level. Therefore, no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.9 HAZARDS AND HAZARDOUS MATERIALS

IX. HAZARDS AND HAZARDOUS MATERIALS. Would the Project:	Potentially Significant Impact	Less Than Significant with 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 Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐

2.9.1 Background and Setting

Hazardous materials include flammable, reactive, corrosive, or toxic substances that, because of these properties, pose potential harm to the public or environment.

Materials associated with the operation of the proposed project are required to be handled, stored, transported, and disposed of according to a framework of federal, state, and local regulations.

Regulatory bodies include, but are not limited to, the California Environmental Protection Agency, Department of Toxic Substances Control, Calaveras County Environmental Health, and the California Division of Occupational Safety and Health.

Chemical treatments at the facility include use of sodium hypochlorite, an aluminum sulfate (alum) coagulant, chlorine disinfectant (manufactured on site, 0.08%), zinc orthophosphate (anti-corrosive), and sodium hydroxide (50% concentration aka caustic soda).

2.9.2 Analysis

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

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

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

Less than Significant with Mitigation.

The project involves the short-term use of construction equipment which could result in unanticipated oil or related fluid leaks--a potentially significant adverse impact on water quality. Therefore, the following mitigation measures are proposed as previously described in the Biological Resources section of this study:

MM HAZ-01 (MM BIO-7): Environmental Awareness Training

MM HAZ-02: Construction Spill Prevention Plan
Prior to site disturbance, prepare a spill response plan to address the appropriate methods for containing accidental spills of toxic materials (e.g., engine oils).

Mitigation Monitoring HAZ-02:
The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.

Ongoing project operations include the use of hazardous or semi-hazardous materials. Low strength chlorine (0.08%) is used at the site and is not considered hazardous or semi-hazardous. Sodium hydroxide (50%) is used. The Fire Marshall has reviewed the proposed materials list and processing procedures Consistent with state law, the following condition is required:

Condition of Project Approval
Hazardous Materials Storage and Spill Prevention Plan Prior to completing Phase 1, the existing hazardous materials storage plan and emergency response plan shall be submitted for review to determine the necessity for any updates to the City Fire Department and will continue to be implemented and updated throughout the life of the project.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. A review of the California Department of Toxic Substances Control (DTSC) database, EnviroStor, which lists hazardous materials sites complied pursuant to California

Government Code Section 65962.5; GeoTracker, which provides information on Leaking Underground Storage Tanks (LUST) and other cleanup sites; and EPA's Toxic Release Inventory (EPCRA TRI) databases identified no hazardous materials sites within 10,000 feet of the Project area (**Attachment C**). Based on the preceding, no impacts associated with known hazardous material sites are anticipated.

This mitigation measure is expected to avoid the introduction of mercury into the river resulting in less than significant impact with respect to hazardous materials.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?

No Impact. The Calaveras County airport is located 6.6± aerial miles from the site. No aviation safety hazards are expected from the project because the site is outside the designated clear zone for departures and approaches to the nearest airports. The Project is not located within the boundaries of an Airport Land Use Plan or private airstrip. Therefore, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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

No Impact.
The City of Angels has an adopted emergency response plan. Development on this site will have no impact on any emergency response plan and will not interfere with the County's ability to respond to any emergency requiring evacuation of residents in this area because it is not identified as an evacuation route or staging area during emergencies. The proposed improvements will ensure water delivery during times of emergency, thereby improving the City's emergency response operations.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

g) Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant with Mitigation.
The project site is in located in the County (State Responsibility Area) in a high fire hazard severity zone [11].

The City Fire Marshall has reviewed the proposed project. The primary fire risk is associated

[11] https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414

with grasses along the proposed water line and oak woodland with heavy understory on the slopes surrounding the WTP. Portions of the grasslands surrounding the WTP are irrigated and grazed thereby reducing fuel loads. However, the City's water storage tank and the WTP itself are surrounded by oak woodlands. In some locations, a relatively heavy understory exists as do some dead trees. Given the critical nature of the infrastructure, a wildland fire could result in a potentially significant adverse impact. To mitigate this potential impact, the following is required:

Mitigation Measure HAZ-03: Vegetation Management and fuel reduction for Wildland Fire Protection

In conjunction with undertaking project improvements during Phase 1, the City shall reduce the fuel load in consultation with the City Fire Marshall within the oak woodlands surrounding the WTP in accordance with PRC 4291. Fuel load reduction may include the use of goats or other means to reduce ladder fuels and dead vegetation surrounding the WTP.

Mitigation Monitoring HAZ-03:

The required mitigation measure will be implemented prior to completing Phase 1 Project construction. The measure is the responsibility of the City or their construction contractor.

Proper implementation of the preceding will reduce the potential impact to a level of less-than-significant.

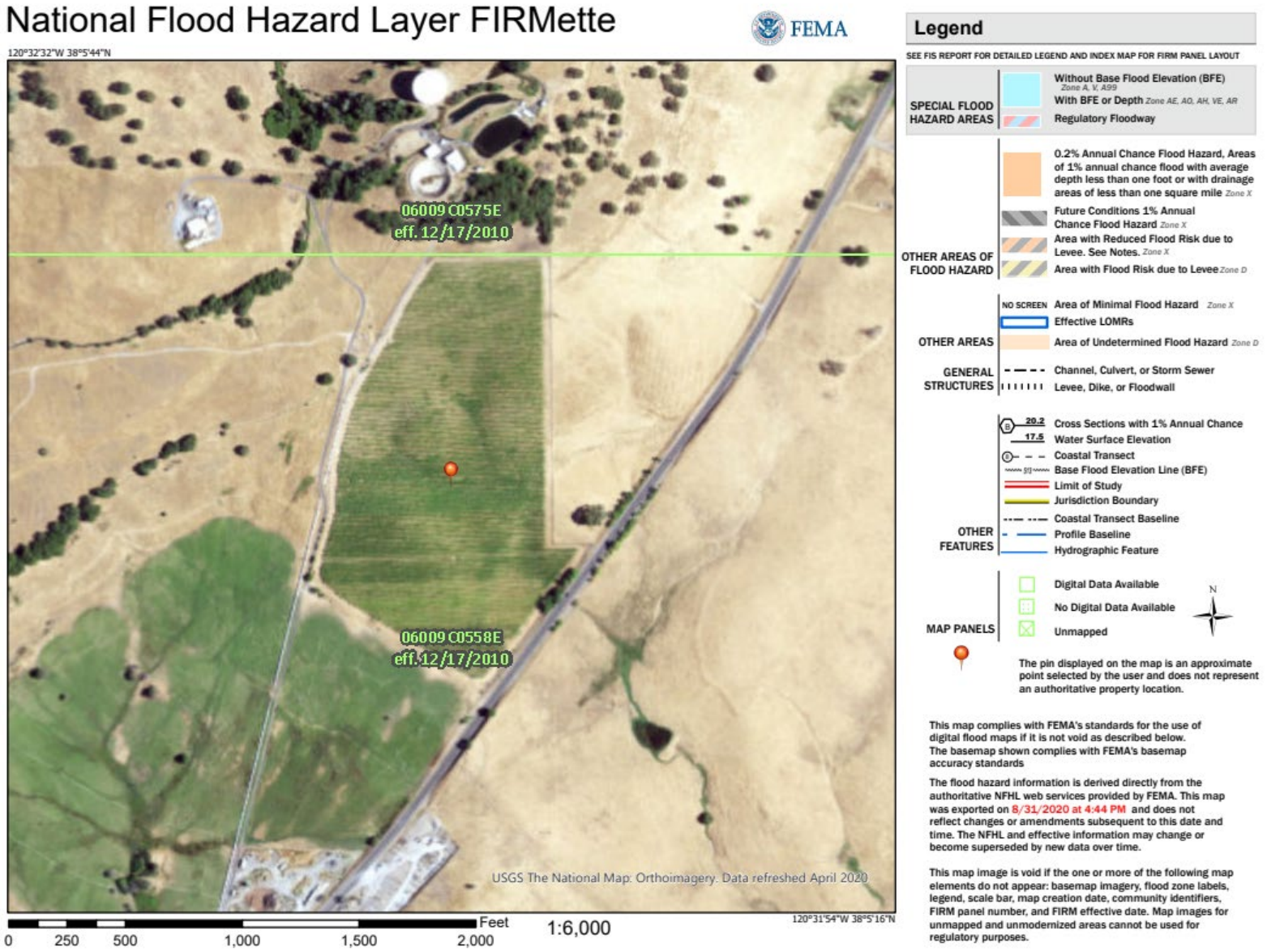
2.10 HYDROLOGY AND WATER QUALITY

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

2.10.1 Background and Setting

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel# 06099C00558E and 06099C00575 E (effective date December 17, 2010), identifies the Project boundaries of a Flood Zone X (See following figure). Zone X is an area of minimal flood hazard.

Figure 25: FEMA Flood Insurance Rate Map



2.10.2 Analysis

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

Less Than Significant with Mitigation Incorporated.
Activities associated with Project construction may temporarily disturb soils and result in loss of topsoil and soil erosion. Runoff could carry eroded soils into surrounding ditches and drainages and off-site thereby degrading water quality, a potentially significant adverse impact. The National Pollution Discharge Elimination System (NPDES) stormwater program is administered by the California Regional Water Quality Control Board and regulates such discharges to reduce non-point source pollutants associated with runoff relative to construction activities. The Project will comply with these regulations to reduce potential impacts to a level of less than significant as described previously in:

HYDRO-1 (MM BIO13): Erosion Control & Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)

HYDRO-2 (MM BIO-14): Silt/Barrier fencing

Also, as previously described, equipment spills and leaks could occur during construction and enter the drainage --a potentially significant adverse impact on water quality. The following mitigation measures are required.

HYDRO-3 (MM BIO-7): Environmental Awareness Training

HYDRO-4 (MM HAZ-02): Construction Spill Prevention Plan

Proper implementation of these measures is expected to minimize the potential impacts of the project on water quality to a level of less-than-significant.

Finally, current plant operations include flushing backwash into Torrey Gulch. Backwash includes sediments and chemicals associated with settling, flocculation. The proposed project will eliminate the discharge of backwash into Torrey Gulch and replace it with freshwater releases. The WTP upgrades will, therefore, result in a net improvement to water quality – a potentially significant positive impact.

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

No Impact. No groundwater will be used for the proposed project. Therefore, based on the nature of the proposed Project, no impact will occur.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

d) 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 that would:

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

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

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

iv. Impede or redirect flood flows?

Less than Significant with Mitigation Incorporated.
The project will pipe a portion of an existing ditch (Union Ditch) as described herein. In addition, project construction will disturb soils that may be erode off-site or into the project drainage – a potentially significant adverse impact. To address this impact, the following is proposed.

HYDRO-1 (MM BIO-13): Erosion Control & Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)

HYDRO-2 (MM BIO-14): Silt/Barrier fencing

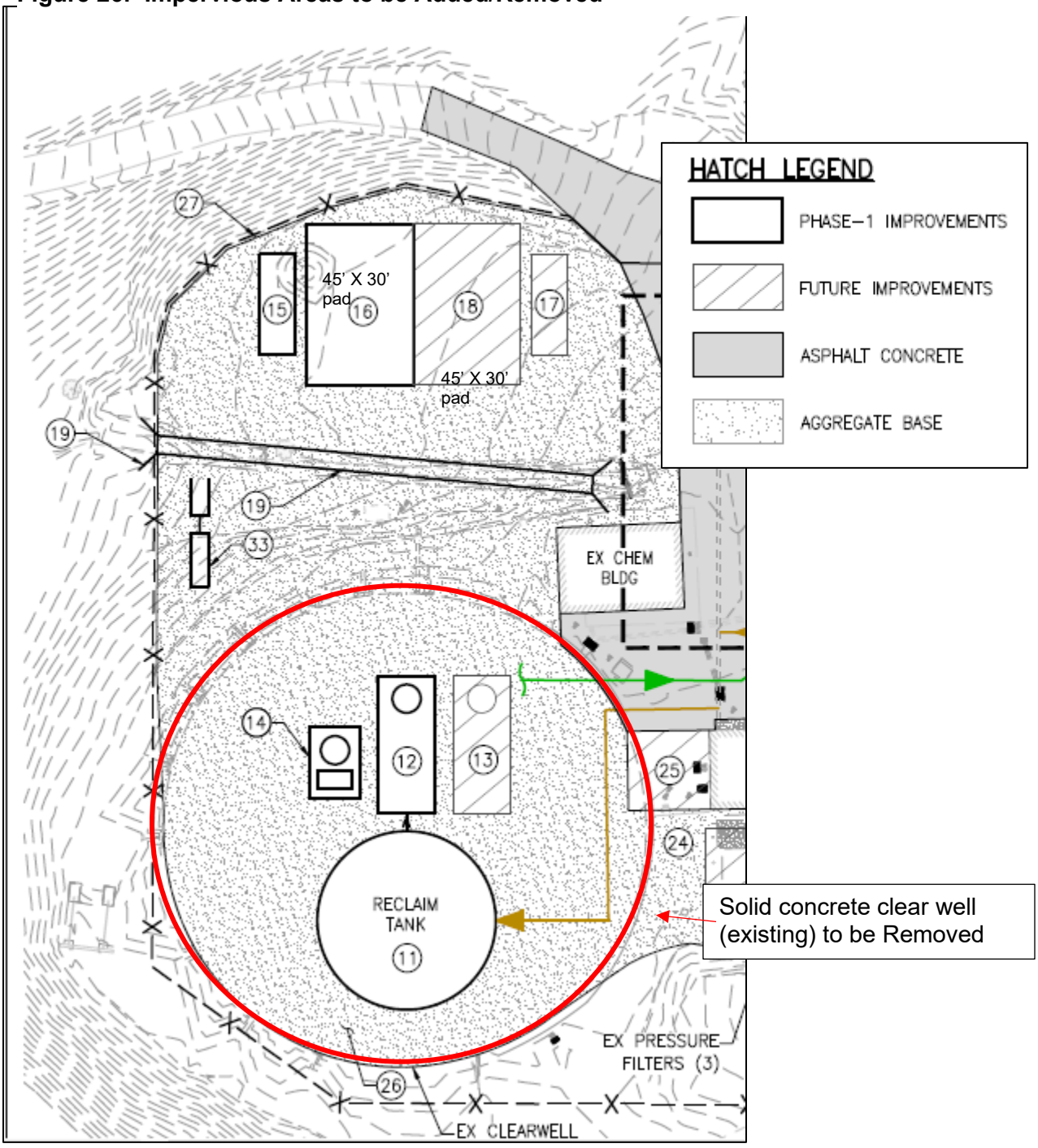
HYDRO-3 (MM BIO-7): Environmental Awareness Training

Proper implementation of the preceding is expected to reduce the potential impacts to water quality to a level of less than significant.

The project will eliminate the existing impervious concrete clear well which captures run-off but does not allow for captured runoff to drain into soils. The project calls for the abandoned clear well to be demolished and filled in to provide usable area for a new reclaim tank and clarification equipment. This will create an overall net decrease in impervious surfacing. The existing septic system will be relocated. That area will then be used for dewatering equipment and solids drying and storage. This will create an overall net decrease in impervious surfaces of approximately 7,723 square feet. Because overall impervious surfacing is expected to decrease, run-off is expected to decrease and no impacts associated with increased runoff are anticipated.

Impervious Surfacing to be Added	Size (square feet)
11 Reclamation tank	1,963
12 Incline plate clarifier 28’ X 16’	448
13 Incline plate clarifier 28’ X 16’	448
14 Sludge tank and Press 14’ X 20’	280
15 Sludge press equipment pad 10’ X 30’	300
16 45’ X 30’ concrete drying pad	1,350
17 Sludge press equipment pad 10’ X 30’	300
18 45’ X 30’ concrete drying pad	1,350
19 Pipe open Ditch 130’ X 4’	520
Impervious Surfacing Removed	+6,959
Clear Well	-14,682
Net decrease	-7,723

Figure 26: Impervious Areas to be Added/Removed



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

No Impact.
The project site is located outside a flood hazard zone and is not subject to risks associated with tsunami or seiche zones. Therefore, the risk of release of pollutants due to project inundation is not significant.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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

No Impact:
The project does not propose drilling any groundwater wells. Therefore, the project does not conflict with such a plan.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

2.11 LAND USE AND PLANNING

XI. LAND USE AND PLANNING. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Create a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

2.11.1 Background and Setting

The Project site is developed as a Water Treatment Plant with the following zoning and general plan land use designations.

Assessor's Parcel Number	Size (acres)	Owner	General Plan / Zoning (Calaveras County)
Water Treatment Plant			
057-011-002	2.68	Utica Power Authority	Resource Production / Unclassified
057-011-003	1.77	Utica Power Authority	Resource Production / Resource Production
057-011-015	0.66	City of Angels	Resource Production / Unclassified
Total	**5.11**		
Pipeline (Existing and Proposed)			
057-011-004 (portion)	/a/	Rolleri Richard Cowden & Carla J Trustee etal	Resource Production / Unclassified
057-011-005 (portion)	/a/	Rolleri Richard Cowden & Carla J Trustee etal	Resource Production / Resource Production/Highway Service
057-019-001 (portion)	/a/	Rolleri Richard Cowden & Carla J Trustee etal	Rural Residential / Unclassified/Highway Service
057-019-003 (portion)	/a/	Rolleri Richard Cowden & Carla J Trustee etal	Resource Production / Unclassified/Highway Service

2.11.2 Analysis

a) Physically divide an established community?

No Impact. The Project is located on the site of an existing Water Treatment Plant near the location of a reservoir and ditch system dating to the 19th and 20th centuries located north and outside the City of Angels. The next established community is Murphys located approximately 5 miles northeast of the project site. The project will not expand the footprint of the existing water treatment plant outside the existing parcel boundaries. Therefore, it will not physically divide an established community.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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

No Impact.
The proposed project will implement improvements identified in the City's Water Master Plan.

General Plan 2020 calls for the following applicable goals, policies, and programs:

> ***Policy 1.G.1*** *New development shall be served with adequate water, sewer, police, fire, roads and recreational services and facilities.*
>
> ***Goal 4.G*** *Ensure adequate water quality and quantity for the residents of and visitors to the city.*
>
> ***Policy 4.G.4*** *Provide an adequate supply of water for the city's existing and anticipated future needs.*
>
> ***Implementation Program 4.G.f Update and Implement a Water Master Plan***
> *Continue to update and implement the city's water master plan in compliance with state law including regular updates to the facility financing plan.*
>
> ***Goal 7A*** *Maintain and, where feasible, increase levels of city-provided water service, wastewater service, fire, police, parks, parking, public works, administrative and other services and infrastructure.*
>
> ***Goal 7B*** *Continue to improve Angels Camp's capacity to store, treat and deliver water and to collect and treat wastewater as necessary to achieve the stated goals of the city.*
>
> ***Implementation Program 7.B.5***
> *Maintain water and wastewater facilities adequate to serve the city's housing needs for all income levels.*

The proposed water treatment plant upgrade project is essential for the City to ensure adequate, safe, drinking water to its existing citizens of all income levels and to support additional planned growth in the City consistent with these goals, policies and programs. Therefore, the project is consistent with the City's General Plan.

The General Plan 2020 Environmental Impact Report mitigation measures (incorporated into General Plan 2020 Implementation Measures, as applicable) necessary to avoid or minimize impacts include the preparation of a growth and infrastructure allocation plan. The proposed project, however; is intended to provide redundant operating systems and reduce maintenance necessary and allow the system to reach its design capacity – consistent with the intent of the growth and infrastructure allocation study. Therefore, the project does not create a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.12 MINERAL RESOURCES

XII. MINERAL RESOURCES. Would the Project:	Potentially Significant Impact	Less Than Significant with 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?	☐	☐	☐	☒

2.12.1 Background and Setting

Since the identification of mineral resources in Calaveras County in 1962, the State of California has undertaken more intensive classification efforts in some counties. State classification of mineral resources is intended to assist counties in managing important mineral resources within their jurisdiction. To date, only the San Andreas Quadrangle has been evaluated in detail in Calaveras County. The California Geological Survey (CGS) anticipates that additional evaluations and classifications of mineral resource values within the county, including the Angels Camp Sphere of Influence, will occur in the coming years; however, a review of the CGS list of available surveys shows no new mineral classification maps have been released for Calaveras County since adoption of the Angels Camp 2020 General Plan in 2009. In the interim, Angels Camp applies the Calaveras County mineral resource classifications surrounding the city's sphere of influence to evaluate potential impacts on mineral resources.

2.12.2 Analysis

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

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

No Impact. Pursuant to the Calaveras County General Plan (2019), Resource Production Element (Minerals), the project area is designated as "unclassified" with respect to mineral resources. As stated in the Calaveras County General plan:

> *Per the State Mining and Geology Board, as of 2013, there are no lands designated in Calaveras County as mineral areas of regional or statewide significance. As mineral resources are depleted elsewhere in the state, however, there is an increased likelihood of future designations. Associated Plans and Documents: Mineral Resources the County maintains the following text, maps and diagrams identifying the location and relative importance of mineral lands countywide and the County's adopted policies for managing those resources. Text, maps and diagrams are updated on a regular basis. Current versions available at the Calaveras County Planning Department at 891 Mountain Ranch Road, San Andreas, CA 95249, include: • Mineral information classified by the State Geologist (General Plan Technical Background Report) • Calaveras County Code Chapter 17.56 (Mineral Extraction Zone) addressing mineral resource management policies and fulfilling the requirements of the Surface Mining and Reclamation Act relative to maintaining a mining ordinance in accordance with state statutes Ordinance No. 2571, adopted by the Calaveras*

County Board of Supervisors in 1999 was certified by the State Mining and Geology Board (SMGB) on 11/10/1999 pursuant to SMGB Resolution 99-19).

Given that the site is not designated by the state as mineral resources nor delineated as locally important in the general plan; there will be no loss of availability of a known mineral resource of value (locally, regionally, or by residents of the state) and no significant adverse impacts to mineral resources are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.13 NOISE

XII. NOISE -- Would the Project result in:	Potentially Significant Impact	Less Than Significant with 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 applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	☒

2.13.1 Background and Setting

The project site is isolated and surrounded by grazing land. Pumps and motors generate noise at the plant.

2.13.2 Analysis

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

b) Generation of excessive ground-borne vibration or ground-borne noise levels?

Less Than Significant with Mitigation Incorporated.

During construction, noise levels are expected to increase temporarily from the use of heavy equipment. A single residence is located 700± feet west of the site. A landscaping supply operates heavy equipment daily 2,500± feet south of the site. Temporary increases in noise levels during these activities may occur but given the existing ambient noise levels and the distance of the nearest receptors, the temporary impact is not expected to result in a significant adverse impact.

Once operational, the Water Treatment Plant will generate noise above the current daytime levels. To ensure that existing land uses will not be adversely impacted by noise generated by the project, the Project will be required to comply with the noise standards for industrial uses as established by the City of Angels General Plan 2020, as may be amended:

Mitigation Measure Noise-4 Comply with General Plan Noise Standards

The project shall comply with the exterior noise exposure level standard category of "Conditionally Acceptable" and based on the allowable land uses within the zoning district of the receiving property as contained in the City of Angels General Plan 2020 Implementation Measure 5.A.a/Figure 5-1 for noise levels as measured at the receiving parcel as those standards may be amended through adoption of a City Noise Ordinance.

Figure 5-1 : Exterior Community Noise Exposure Levels- L_{dn} or CNEL, (in Decibels, dB)

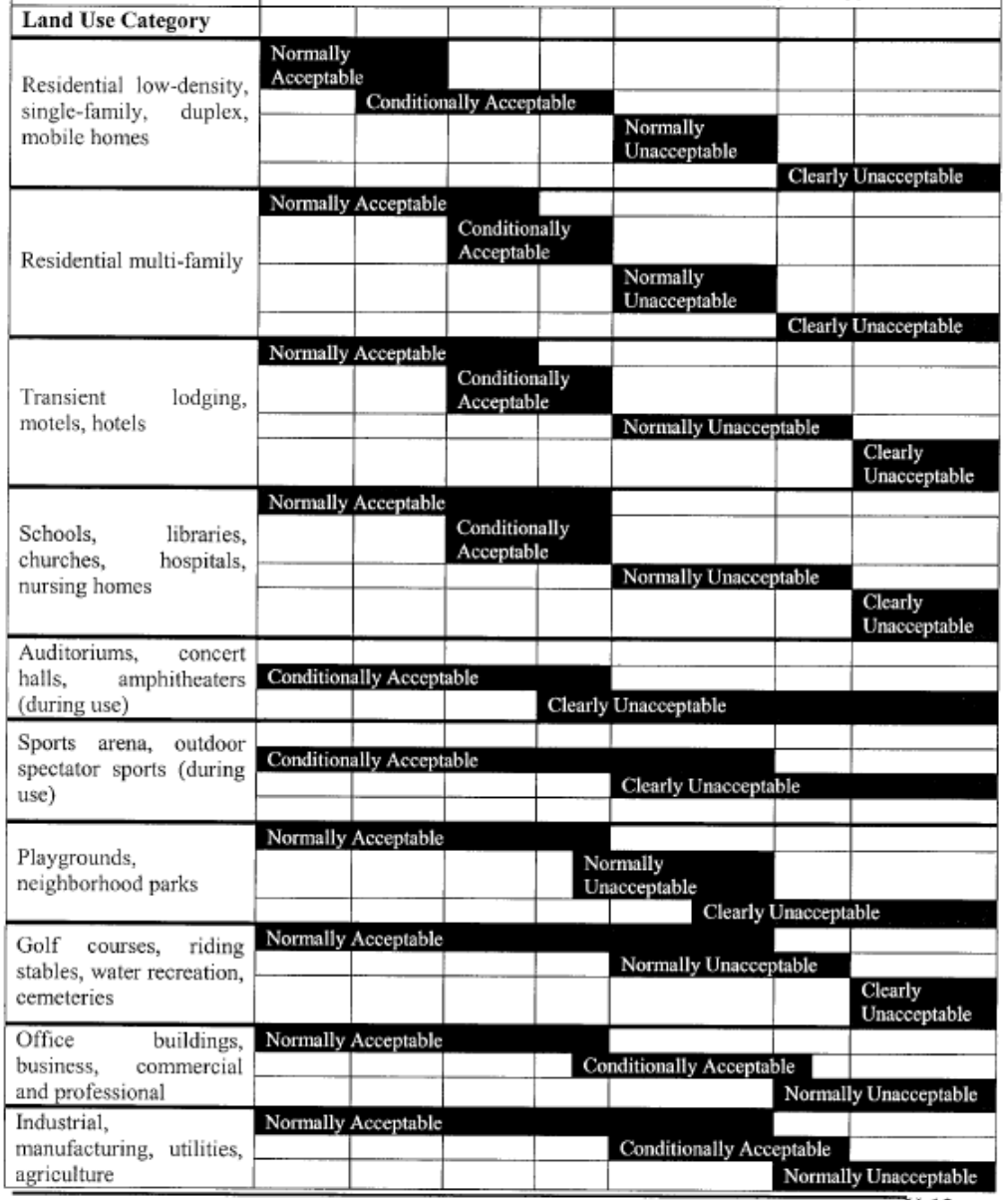


Figure 5-1 Key:

Normally Acceptable:
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional Construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable:
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable:
New construction or development should generally not be undertaken.

Mitigation Monitoring Noise-4:
The City is responsible for enforcing this provision and will respond to complaints through its regular code enforcement process.

Proper implementation of the preceding measure is expected to minimize noise impacts to a level of less-than-significant.

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

No Impact. The project is not located within the vicinity of a private airstrip or airport land use plan. The nearest airport is 6.6± aerial miles from the site. Therefore, no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.14 POPULATION AND HOUSING

XIV. POPULATION AND HOUSING. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

2.14.1 Background and Setting

The project proposes no new housing. No significant extension of infrastructure to provide water or sewer service is proposed.

2.14.2 Analysis

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact.
The project involves improving the existing Water Treatment Plant to provide redundant system ensuring continuing operations, reduce maintenance, and enable the Plant to achieve its design capacity and provide sufficient water consistent with General Plan 2020 growth projections. Therefore, no substantial unplanned growth is anticipated either directly or indirectly.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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

No Impact.
No residences will be demolished and no people will be relocated in conjunction with the proposed Project. Therefore, no significant adverse impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.15 PUBLIC SERVICES

XV. PUBLIC SERVICES.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☐
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

2.15.1 Background and Setting

The project will rely on police and fire protection provided by the City of Angels Police Department and City of Angels Fire Department. Given the nature of the proposed project, no schools or parks will serve the site. Calaveras Power Agency provides electricity.

2.15.2 Analysis

a) Substantial adverse physical impact associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: fire protection, police protection, schools, parks?

No Impact.

The project involves an existing public utility to be upgraded within its existing footprint. No additional public services are expected to be necessary to serve the site. The project will improve water service for the City – a potential beneficial effect. Therefore, no adverse impact is anticipated.

2.16 RECREATION

XVI. RECREATION.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

2.16.1 Background and Setting

The project involves upgrades to an existing City water treatment plant.

2.16.2 Analysis

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

b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact

The proposed Project will not increase population; therefore, it will not increase demand on the use of existing parks or require new facilities.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.17 TRANSPORTATION

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

2.17.1 Background and Setting

Access to the site is provided from Murphys Grade Road via a driveway off Murphys Grade Road.

2.17.2 Analysis

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

No Impact

Based on a review of City of Angels General Plan 2020 bicycle and pedestrian plans, Calaveras County Regional Transportation Plan, Calaveras County Bikeway and Pedestrian Plans, Calaveras County General Plan, Calaveras County General Plan Draft EIR, current sidewalk projects being undertaken in the City of Angels along Murphys Grade Road and SR 49, the Angels Camp Main Street Plan, and the Angels Creek Trail Plan, the proposed project does not conflict with programs, plans, ordinances or policies related to transit, roadways, bicycle or pedestrian facilities.

Traffic volume will not change as a result of WTP upgrades.

Based on these considerations, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?

No Impact

Pursuant to Section 15064.3, for land use projects, vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less-than-significant transportation impact.

Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less-than-significant impact.

The proposed project involves upgrades to the existing WTP and will not result in additional vehicle trips or vehicle miles traveled. Therefore, no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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

No Impact.

The proposed project involves upgrades to the existing WTP and will not result in additional vehicle trips and will not alter the design of any existing roadway nor increase the use of any existing roadway. Therefore, no impact is anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

d) Result in inadequate emergency access?

No Impact.

The City of Angels has an adopted emergency response plan. Development on this site will have no impact on any emergency response plan and will not interfere with the County's ability to respond to any emergency requiring evacuation of residents in this area because it is not identified as an evacuation route or staging area during emergencies. The project upgrades will enhance the City's ability to respond to emergencies through the provision of redundant systems to ensure ongoing water supplies during emergencies.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.18 TRIBAL CULTURAL RESOURCES

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

2.18.1 Background

State Assembly Bill 52

Effective July 1, 2015, Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California tribes as part of CEQA. Under AB 52, the Lead Agency shall begin tribal consultation on the proposed project prior to release of the CEQA document [CA Code of Regulations (CCR) Section 21081.3.1, subdivision (b)]. For tribes that have requested to be informed by the Lead Agency of proposed projects, the Lead Agency shall provide formal notification of the proposed project and the opportunity to request consultation [CCR Section 21080.3.1 subdivision (d)].

Public Resources Code Section 21073 defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Tribal Cultural Resources, for the purposes of AB52, are defined in Public Resources Code Section 20174 as:

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

A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.

B. Included in a local register of historical resources as defined in subdivision (k) of 5020.1.

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

Resources subject to AB52 also include:

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

No tribes have requested AB52 consultation on projects in the City of Angels. However, the four Tribes have notified Calaveras County of their desire for AB52 notification[12]: Calaveras Band of Miwuk Indians, Buena Vista Rancheria of Me-Wuk Indians, Ione Band of Miwok, and Washoe Tribe of Nevada and California.

Because the project occurs outside the City limits within the County, yet the City is the CEQA Lead Agency; the City initiated AB 52 consultation on September 21, 2020.

Sacred land File Search and Correspondence with Native American Representatives
Patrick GIS submitted a formal request to the California Native American Heritage Commission (NAHC) for a Sacred Lands File search on October 22, 2018. The NAHC responded on October 30, 2018. The search was negative for sacred cultural resources.

On September 21, 2020 an e-mail describing the project was sent to the four tribes on file with Calaveras County for AB52 notification (**Attachment D**).

The results of Native American contacts, to date, are as follows:

Table 11: Native American AB 52 Contacts

Tribe	Response	Action
Calaveras Band of Miwuk Indians P.O. Box 899 West Point, CA 95255 Attn: Debra Grimes calaverasmiwukpreservation@gmail.com	E-mail received 9/23/20 requesting consultation, site visit, and coordination	Conducted on-site survey and consultation 10/23/20 resulting in TCR-4.
Buena Vista Rancheria of Me-Wuk Indians 1418 20th Street Sacramento, CA 95811 troy.burdick@bia.gov	Pending	

[12] Peter Maurer, Calaveras County Planning Director, Personal Communication September 17, 2020.

Tribe	Response	Action
Ione Band of Miwok P.O. Box 699 Plymouth, CA 95669 Attn: Gretchen Cox gretchen@ionemiwok.net	Pending	
Washoe Tribe of Nevada and California 919 Highway 395 South Gardnerville, NV 89410 robert.eben@bia.gov	Pending	

Due to their location in Calaveras County and staff's ongoing coordination with tribe representatives, a courtesy notice also was sent to:

The Honorable Lawrence Wilson, Chair
California Valley Miwok Tribe
Sheep Ranch Rancheria of Me-Wuk Indians of CA
P.O. Box 395
West Point, CA 95255

No response has been received to date.

Records Search, Field Surveys, and Cultural Resource Studies
An archaeological study was conducted by Patrick GIS Group, Inc. and previously incorporated by reference. The study is available upon request to qualified individuals; however, it is not available to the public for reasons of confidentiality. No tribal cultural resources were identified by Patrick GIS Group, Inc.

The study included pre-field archival research at the Central California Information Center (Information Center) of the California Historical Resource Information System (CHRIS) located at California State University Stanislaus, a pedestrian survey and preparation of a cultural resources report.

Resources were evaluated in accordance with the California Environmental Quality Act,(CEQA) Sections 21083.2 and 20184.1 as contained in Public Resources Code Sections 2100 et seq. and the Guidelines for implementing CEQA, the California Register of Historical Resources (CRHR), the National Historic Preservation Act (16 USC 470) and 36 Code of Federal Regulations (CFR) 800.4 (a) (d) (1).

2.18.2 Analysis

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

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

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

subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

Less than Significant with Mitigation Incorporated
Based on initial consultation with the Calaveras Band of MiWuk, the area surrounding the water treatment plant may include sites of cultural value to the tribe. A site walk with Ms. Grimes is scheduled for early-to-mid October to identify sensitive resource areas and determine if proposed site work will conflict with any sites.

Ms. Grimes requests that a MiWuk representative be present during initial site grading to verify that the site does not contain resources of significance to the Native American community that could be disturbed by subsurface excavations – a potentially significant adverse impact. To mitigate these impacts, the following mitigation measures are included:

Mitigation Measure TCR-1: SEE Mitigation Measure BIO-7: Environmental Awareness Training

Mitigation Measure TCR-2: SEE Mitigation Measure CULT-4: Unanticipated Cultural Resource Discoveries

Mitigation Measure TCR-3: SEE Mitigation Measure CULT-5: Human Remains

Mitigation Measure TCR-4:
Prior to site disturbances occurring outside the existing fenced boundaries of the existing water treatment plant, the applicants shall contact the Calaveras Band of MiWuk and arrange to have a Native American monitor present during initial site grading. Specifically, a monitor will be present during soil disturbances for constructing the new water transmission line and during ditch culverting, sludge and solids storage area/press, septic system relocation (e.g., Items 16, 17, 18, 19, 27 on site plan – Figure 8 herein).

Mitigation Monitoring TCR-4
The mitigation measure will occur prior to issuance of a Grading Permit. The project contractor is responsible for contacting the Calaveras Band of MiWuks to arrange for a monitor. Payments or contracting between the parties, if it occurs, is the responsibility of the contractor and Native American monitor.

Proper implementation of these mitigation measures will reduce the potential impact to a level of less-than-significant.

2.19 UTILITIES AND SERVICE SYSTEMS

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

2.19.1 Background and Setting

The proposed Project involves upgrades to the City's water treatment plant. It is served by an individual septic system. Solid waste disposal will be provided by CalWaste.

2.19.2 Analysis

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

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

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

No Impact.

The project involves upgrades to an existing City Water Treatment Plant to improve efficiency and incorporate redundancy to ensure ongoing water supplies. Upgrades are being undertaken as necessary to allow the WTP to achieve its design capacity to serve the City's population as evaluated in the City's General Plan 2020 Environmental Impact Report (City of Angels, 2009) and as provided for in the Water Master Plan. Therefore, based on the nature

of the project, no impact is anticipated.

Electrical service already is provided to the site. The site is not served by the City's public wastewater infrastructure and relies on a private septic system; therefore, it will not affect wastewater treatment infrastructure. No changes to telecommunications systems are proposed. No natural gas serves the site. Based on the nature of the existing WTP and the proposed upgrades, no impacts are foreseeable.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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?

No Impact. Cal-Waste contracts with Angels Camp for solid waste pick-up. Cal-Waste provides curbside pickup of household garbage and recycling for residents of Angels Camp. Cal-Waste also provides recycling services for businesses, including pick-up of recyclables on site.

Approximately six transfer stations and one transfer station annex, and one landfill are located in Calaveras County which disposes of solid waste both inside and outside the County. In 2013, 43 tons (0.1% of total waste) were disposed of in locations outside of the County in Alameda, Kern, San Joaquin, Solano and Stanislaus Counties. The remainder, 31,983 tons, was disposed of at the County's Rock Creek landfill. The Rock Creek Solid Waste Facility includes a Class II landfill, a transfer station, several recycling programs and a household hazardous waste facility. It is located at 12021 Hunt Road, near Milton and has a capacity of 8,710,486 cubic yards. As of 2013, the landfill had a remaining capacity of 6,657,862 cubic yards or 76%. The Calaveras County Department of Public Works estimates 26.8 years of capacity remains. Therefore, sufficient solid waste disposal facilities are anticipated to meet the needs of the project.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

2.20 WILDFIRE

XX. If located in or near state responsibility areas or land classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with 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 wildfire?	☐	☒	☐	☐
c) Require 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?	☐	☒	☐	☐

2.20.1 Background

The project is in a state responsibility area and is mapped as a high wildland fire hazard severity zone.

2.20.2 Analysis

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

No Impact.

The City of Angels has an adopted emergency response plan. Development on this site will have no impact on any emergency response plan and will not interfere with the County's ability to respond to any emergency requiring evacuation of residents in this area because it is not identified as an evacuation route or staging area during emergencies.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

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 wildfire?

c) Require 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?

Less Than Significant with Mitigation.
The project site is in located in the County (State Responsibility Area) in a high fire hazard severity zone [13].

The City Fire Marshall has reviewed the proposed project. The primary fire risk is associated with unirrigated grasses along a portion of the proposed water line and oak woodlands with heavy understory on the slopes surrounding the WTP. Portions of the grasslands surrounding the WTP are irrigated and grazed thereby reducing fuel loads. However, the City's water storage tank and the WTP itself are surrounded by oak woodlands. In some locations, a relatively heavy understory exists as do some dead trees. Given the critical nature of this infrastructure, a wildland fire hazard could result in a potentially significant adverse impact. To mitigate this potential impact, the following is required:

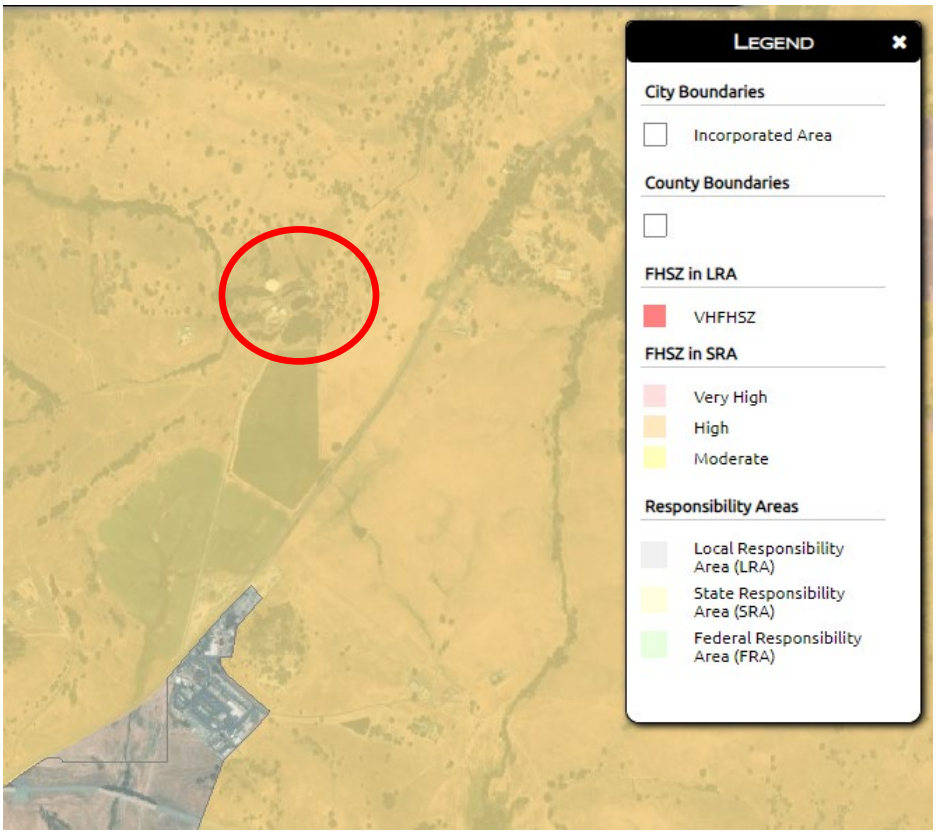
Mitigation Measure HAZ-03: Vegetation Management and fuel reduction for Wildland Fire Protection
In conjunction with undertaking project improvements during Phase 1, the City shall reduce the fuel load in consultation with the City Fire Marshall within the oak woodlands surrounding the WTP in accordance with PRC 4291. Fuel load reduction may include the use of goats or other means to reduce ladder fuels and dead vegetation surrounding the WTP.

Mitigation Monitoring HAZ-03:
The required mitigation measure will be implemented prior to completing Phase 1 Project construction. The measure is the responsibility of the City or their construction contractor.

Proper implementation of the preceding will reduce the potential impact to a level of less-than-significant.

[13] https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414

Figure 27: Fire Hazard Severity



2.21 MANDATORY FINDINGS OF SIGNIFICANCE

XXI. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are 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 which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

2.21.1 Analysis

a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation Incorporated.
As detailed in this study, the proposed Project will not have a significant effect on the environment and will not result in any of the impacts requiring a mandatory finding of significance provided the mitigation measures identified herein are properly implemented and maintained as described in the Biological, Cultural Resources, and Tribal Cultural Resources sections of this study. The mitigation monitoring and reporting plan (**Attachment E**) and its identified mitigation measures as identified herein applicable to Biological Resources, Cultural Resources, and Tribal Cultural Resources if properly implemented and maintained, will reduce the identified potential impacts to biological and cultural resources to a level of less-than-significant.

b) 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)?

Less Than Significant with Mitigation Incorporated.
As described herein, the proposed project may contribute, incrementally, to cumulative impacts related to air quality, biological resources (oaks), energy, and greenhouse gas emissions. The

mitigation measures identified herein, if properly implemented and maintained, will reduce the identified potential impacts to a level of less-than-significant.

c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant with Mitigation Incorporated.
As described herein, the proposed Project will not result in any substantial adverse effects on human beings either directly or indirectly except for temporary noise increases during project construction.

Mitigation measures described in the Noise Section of this study relative to operational noise levels and compliance with City noise standards will reduce that potential impact associated with noise increases to a level of less-than-significant.

Mitigation Measures:
A list of Mitigation Measures applicable to the proposed Project is included in **Attachment E (to be provided in the Public Hearing Draft IS/MND)** of this report and will be employed to minimize any impacts which might result from future development of the project site.

Determination

Based on the information contained in the Initial Study, including incorporation of mitigation measures identified herein, there is no substantial evidence that the project will have a significant adverse effect on the environment. Therefore, approval of the proposed project will not result in significant adverse impacts on either the natural or cultural environment provided the mitigation measures discussed herein are properly implemented and maintained.

Amy Augustine, AICP
City Planner

Date

Prepared by:

Amy Augustine, AICP
City Planner

References

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California Department of Conservation. 2000. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos*

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United States Fish and Wildlife Service – IPAC September 2020.

United States Geological Survey – Cooperstown 7.5 Minute Quadrangle Map

ATTACHMENTS

A. Species Lists, Species Site Survey Results
B. Tree Survey
C. Hazardous Materials
D. Flood Map
E. Mitigation Monitoring and Reporting Plan

Attachment A
Species List, Species Site Survey Results

CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

Home | About the Inventory | CNPS Home | Join CNPS | Simple Search | Advanced Search

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

Plant List

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

Search Criteria

California Rare Plant Rank is one of **[1A, 1B, 2A, 2B, 3]**, FESA is one of **[Endangered, Threatened, Candidate]**, CESA is one of **[Endangered, Threatened, Rare]**, Found in **Calaveras County**

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

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Brodiaea pallida	Chinese Camp brodiaea	Themidaceae	perennial bulbiferous herb	May-Jun	1B.1	S1	G1

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 31 August 2020].

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Angels Camp (3812015))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Agelaius tricolor tricolored blackbird	G2G3 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	1,200 1,602	955 S:3	0	0	0	0	0	3	0	3	3	0	0
Antrozous pallidus pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	1,440 1,440	420 S:1	0	0	0	0	0	1	1	0	1	0	0
Cryptantha spithamaea Red Hills cryptantha	G2 S2	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive	1,800 1,800	6 S:1	0	0	0	0	0	1	1	0	1	0	0
Diplacus pulchellus yellow-lip pansy monkeyflower	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive		78 S:1	0	0	0	0	0	1	1	0	1	0	0
Eryngium pinnatisectum Tuolumne button-celery	G2 S2	None None	Rare Plant Rank - 1B.2	1,215 1,440	30 S:2	0	2	0	0	0	0	0	2	2	0	0
Monadenia mormonum buttoni Button's Sierra sideband	G2T1 S1S2	None None		1,520 1,520	5 S:1	0	0	0	0	0	1	1	0	1	0	0
Navarretia paradoxiclara Patterson's navarretia	G2 S2	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive	1,420 1,420	11 S:1	0	0	0	0	0	1	1	0	1	0	0

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Consultation Code: 08ESMF00-2020-SLI-2765
Event Code: 08ESMF00-2020-E-08469
Project Name: City of Angels Water Treatment Plant Improvements

August 31, 2020

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2020-SLI-2765

Event Code: 08ESMF00-2020-E-08469

Project Name: City of Angels Water Treatment Plant Improvements

Project Type: WATER SUPPLY / DELIVERY

Project Description: Upgrade treatment plant and install redundant waterline.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.0908635858966N120.53872470883397W

Counties: Calaveras, CA

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Figure 28: National Wetlands Inventory

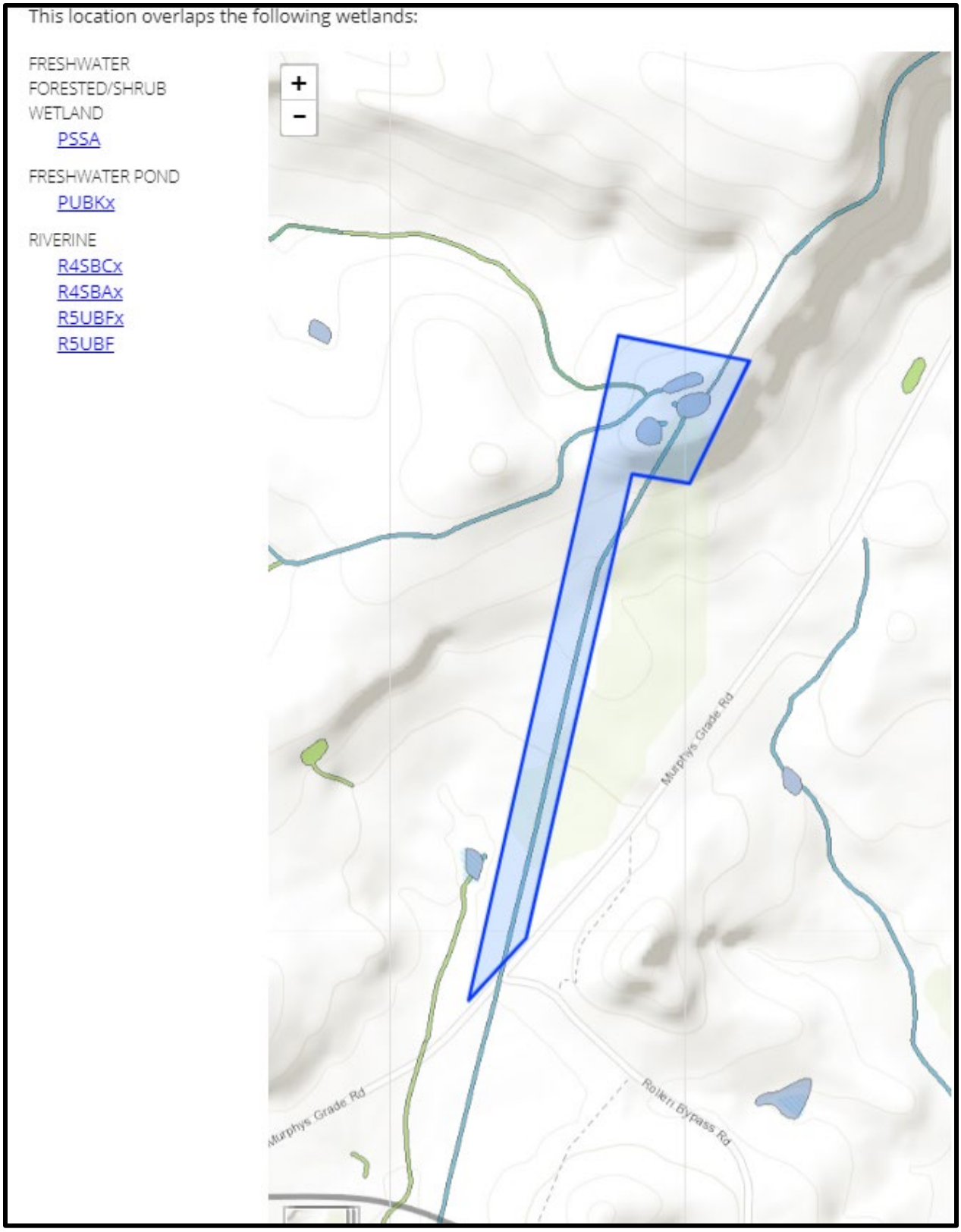


Table 12: Species Identified within the Biological Study Area - Angels Water Treatment Plant

Species	Comments
PLANTS	
Ferns	
Equisteum sp. Horsetail	Equisetaceae
Athyrium filix-femina Common ladyfern	Woodsiaceae
Trees	
Alnus rhombifolia White alder	Betulaceae
Cornus sp. Dogwood	Cornaceae
Calocedrus decurrens Incense cedar	Cupressaceae
Quercus chrysolepis Canyon live oak, Gold cup	Fagaceae
Quercus douglasii Blue oak	Fagaceae
Quercus kelloggii *Black oak*	Fagaceae
Quercus wislizeni Live oak	Fagaceae
Pinus ponderosa Ponderosa pine	Pinaceae
Pinus sabiniana Bull pine, California foothill pine, Gray pine	Pinaceae
Salix laevigata Polished/Red willow	Salicaceae
Acer macrophyllum Big-leaf maple	Sapindaceae
Ailanthus altissima Chinese tree-of-heaven	Simaroubaceae Non-native, invasive
Shrubs	
Sambucus sp. Elderberry	Adoxaceae
Toxicodendron diversilobum Poison oak	Anacardiaceae
Asclepias fascicularis Narrow leaf milkweed	Apocynaceae
Eriodictyon californicum California yerba santa	Boraginaceae
Ceanothus cuneatus Buck brush	Rhamnaceae

Species	Comments
Rhamnus ilicifolia Hollyleaf redberry	Rhamnaceae
Ceanothus integerrimus Deer brush	Rhamnaceae
Cercocarpus betuloides Birch leaf mountain mahogany	Rosaceae
Chamaebatia foliolosa Bearclover, mountain misery	Rosaceae
Dicots	
Anthriscus caucalis Bur chervil	Apiaceae
Sanicula sp. Sanicle	Apiaceae
Apocynum androsaemifolium Spreading dogbane	Apocynaceae
Agoseris heterophylla Annual agoseris, Mountain dandelion	Asteraceae
Anaphalis margaritacea Pearly everlasting	Asteraceae
Artemisia douglasiana California mugwort	Asteraceae
Carduus pycnocephalus Italian thistle	Asteraceae Invasive, non-native
Centaurea solstitialis Yellow star thistle	Asteraceae
Cirsium arvense Canada thistle	Asteraceae Invasive, non-native
Cirsium vulgare Bull thistle	Asteraceae Non-native
Erigeron canadensis Canada horseweed	Asteraceae
Halocarpa virgata Narrow tarplant	Asteraceae
Helenium puberulum Rosilla, Sneezeweed	Asteraceae
Heterotheca grandiflora Telegraph weed	Asteraceae
Matricaria discoidea Pineapple weed	Asteraceae
Silybum marianum Blessed milkthistle, Milk thistle	Asteraceae Non-native
Sonchus sp. Sowthistle	Asteraceae Non-native
Plagiobothrys tenellus Pacific popcorn flower	Boraginaceae
Brassica nigra Black mustard	Brassicaceae

Species	Comments
Petrorhagia dubia Windmill pink	Caryophyllaceae Non-native
Spergularia bocconi Boccone's sand spurry	Caryophyllaceae Non-native
Crassula aquatica Aquatic pygmy weed	Crassulaceae
Croton setiger Turkey-mullein	Euphorbiaceae
Acmispon americanus American bird's foot trefoil	Fabaceae
Hoita macrostachya California hemp	Fabaceae
Lathyrus sulphureus Brewer's pea, Snub pea, Sulphur pea	Fabaceae
Lupinus albicaulis White lupine	Fabaceae
Lupinus bicolor Bicolor lupine	Fabaceae
Lupinus microcarpus Chick lupine	Fabaceae
Melilotus indicus Annual yellow sweetclover	Fabaceae
Trifolium campestre Field clover, Hop clover	Fabaceae
Trifolium hirtum Rose clover	Fabaceae
Vicia villosa Hairy vetch	Fabaceae Non-native
Centaurium tenuiflorum Slender centaury	Gentianaceae
Geranium molle Crane's bill geranium	Geraniaceae
Hypericum sp. St. John’s wort	Hypericaceae
Marrubium vulgare White horehound	Lamiaceae
Mentha pulegium Pennyroyal	Lamiaceae
Pogogyne zizyphoroides Sacramento mesamint, Sacramento mint	Lamiaceae
Lythrum hyssopifolia Hyssop loosestrife	Lythraceae
Malva parviflora Cheeseweed mallow	Malvaceae Non-native
Claytonia parviflora Miner’s lettuce	Montiaceae
Lysimachia arvensis Scarlet pimpernel	Myrsinaceae

Species	Comments
Clarkia purpurea Purple clarkia	Onagraceae
Epilobium brachycarpum Annual fireweed	Onagraceae
Castilleja attenuata *Narrow leaved owl's clover*	Orobanchaceae
Castilleja exserta Owl's clover, Purple owl's clover	Orobanchaceae
Erythranthe cardinalis Cardinal monkeyflower	Phrymaceae
Erythranthe guttata Yellow monkey flower	Phrymaceae
Keckiella breviflora Bush beardtongue	Plantaginaceae
Plantago erecta California plantain	Plantaginaceae
Plantago lanceolata English plantain	Plantaginaceae Non-native, invasive
Gilia capitata Blue field gilia	Polemoniaceae
Persicaria lapathifolia Common knotweed	Polygonaceae
Rumex crispus Curly dock	Polygonaceae Non-native, invasive
Portulaca oleracea Common purslane	Portulacaceae
Drymocallis sp. Cinquefoil	Rosaceae
Rubus armeniacus Himalayan blackberry	Rosaceae Non-native
Rubus laciniatus Cut-leaf blackberry	Rosaceae Non-native
Rubus parviflorus Western thimbleberry	Rosaceae
Galium sp. Bedstraw	Rubiaceae
Verbascum blattaria Moth mullein	Scrophulariaceae
Nicotiana acuminata var. multiflora Tobacco	Solanaceae
Solanum xanti Nightshade	Solanaceae
Brodiaea elegans Harvest brodiaea	Themidaceae
Dichelostemma volubile Twining brodiaea	Themidaceae
Dipterostemon capitatus Blue dicks	Themidaceae

Species	Comments
Phoradendron leucarpum ssp. *tomentosum* Mistletoe	Viscaceae Parasitic
Tribulus terrestris Puncture vine	Zygophyllaceae Non-native
Monocots	
Cyperus eragrostis Tall flatsedge	Cyperaceae
Juncus bufonius Toad rush	Juncaceae
Juncus effuses Common bog rush	Juncaceae
Avena sp. Wild oats	Poaceae Non-native
Bromus rubens Red brome	Poaceae Non-native
Cynodon dactylon Bermuda grass	Poaceae Non-native, invasive
Cynosurus echinatus Annual dogtail	Poaceae Non-native
Digitaria sanguinalis *Crabgrass*	Poaceae Non-native
Echinochloa crus-galli Barnyard grass	Poaceae Non-native
Elymus caput-medusae Medusahead	Poaceae Non-native, invasive
Festuca perennis Italian rye grass	Poaceae Non-native, invasive
Paspalum dilatatum Dallis grass	Poaceae Non-native
Paspalum distichum Knot grass	Poaceae
Phalaris aquatica Bulbous canarygrass	Poaceae Non-native
Polypogon monspeliensis Annual beard grass	Poaceae Non-native
Typha latifolia Common cattail	Typhaceae
Animals	
Insects	
Pepsis sp. Tarantula hawk	
Amphibians	
Lithobates catesbeianus American bullfrog	Non-native 21+ adults and juveniles – Forebay 1-2 in unnamed intermittent drainage

Species	Comments
	1 in Union ditch 0 – Floc/Settling pond
Reptiles	
Sceloporus occidentalis Western fence lizard	
Crotalus atrox Rattlesnake	
Birds	
Raptors	
Buteo jamaicensis Red-tailed hawk	Pair – nesting behavior
Cathartes aura Turkey vulture	
Falco sparverius American kestrel	
Non-raptors	
Agelaius phoeniceus Redwing blackbird	
Callipepla californica California quail	
Charadrius vociferus Kildeer	
Chondestes grammacus Lark sparrow	
Colaptes auratus Northern flicker	
Corvus brachyrhynchos American crow	
Dendroica coronata Yellow-rump warbler	
Euphagus cyanocephalus Brewer's blackbird	
Haemorhous mexicanus House finch	
Hirundo rustica Barn swallow	
Junco hyemalis Dark-eyed Junco	
Melanerpes formicivorus Acorn woodpecker	
Mimus polyglottos Northern mockingbird	
Pheucticus melanocephalus Black-headed grosbeak	
Sayornis nigricans	

Species	Comments
Black phoebe	
Sialia mexicana Western bluebird	Significant numbers of young – nesting indicated in vicinity of irrigated pastures along access road
Spinus tristis American goldfinch	Bathing at outflow at WTP
Sturnus vulgaris European starling	Non-native (not subject to the Migratory Bird Treaty Act)
Tyrannus verticalis Western kingbird	
Zenaida macroura Mourning dove	
Mammals	
Odocoileus hemionus Mule deer	
Otospermophilus beecheyi California ground squirrel	

Attachment B

Attachment B: Maximum Potential Oak Tree Removal or Damage (Direct and Indirect)

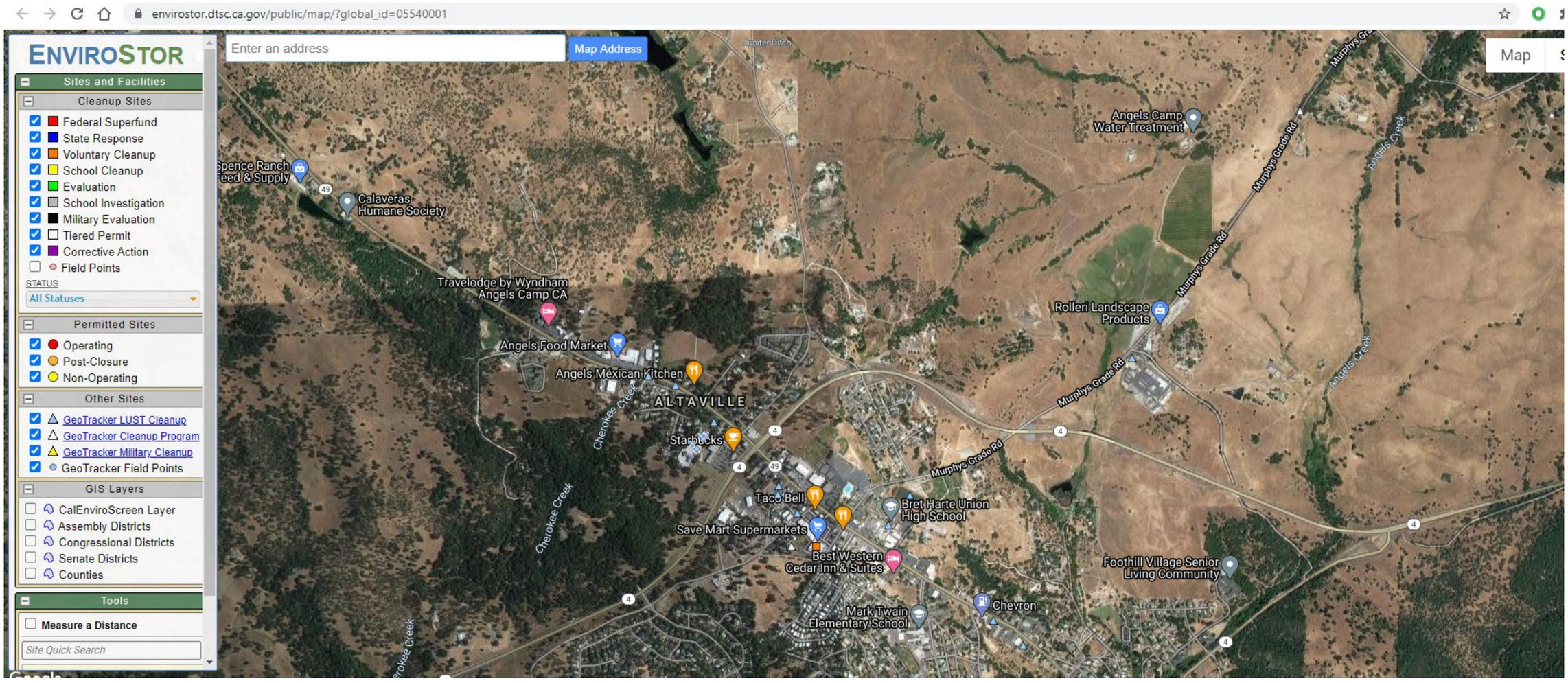
Tree i.d.	Tree Identification (measured Circumference in feet)	Diameter at breast height (inches)	Nature of Impact	Proposed mitigation (Replanting)40.6”	Note
1A	Live oak Double trunk 3.9’ + 5.3’	34.8	Indirect, root damage	5:1	Waterline - Only 1 of these two trees will be indirectly impacted – Trees located along entrance road
1B	Blue oak 5’	19.2	Indirect, root damage	2:1	
Range for trees to be disturbed		*19.2”-34.8”*		2-5 trees	
2A	Blue oak Double trunk 2.8’ + 1.8’	18.0	Direct, removal	2:1	Waterline
2B	Blue oak - 2.8’	10.7	Direct, removal	2:1	Waterline
2C	Live oak – 3.1’	11.9	Direct, removal	2:1	Waterline, circle of rocks below clear well
Range for trees to be removed		*40.6”-40.6”*		6 trees	
3A	Live oak 3’ + 5’	30.0	2-3 of these to be removed dependent upon final design	5:1	Waterline
3B1	Live oak 1’,2’	11.4		2:1	Waterline
3B2	Live oak 0.9 + 1.6	9.6		2:1	Waterline
3B3	Live oak 1.1 + 1.3	9.1		2:1	Waterline
3B4	Live oak 0.9 + 0.8	6.5		2:1	Waterline
3C	Live oak Triple trunk 2.5’ + 1.5’ + 3.4’	28.8		5:1	Waterline
3D	Live oak, multi-trunk (1.85, 1.4, 2.7, 2.7, 2.3, 2.0, 1.6, 1.65, 2.1, 1.65, 2.4)	85.2		5:1	Waterline (In draw, near waterline crossing)
3E	Live oak, multi-trunk (2.1, 1.8, 2, 2.8, 2.1, 2, 2.9, 2.1, 2, 1.8)	82.8		5:1	Waterline (In draw – middle - near waterline crossing)
3F	Live oak, multi-trunk (1.7, 1.8, 1.1, 1.75, 2.55, 1.35, 1.35(	44.4		5:1	Waterline (In draw - lowest-near waterline crossing)
Range for trees to be removed,		*15.6” - 212.4”*		4-15 trees	

impacted:				
Total Range of Mitigation for Oak Trees/a/	**75.4” – 287.8”**		**12-26 trees**	

/a/ Dependent upon final design

Attachment C:

Figure 29: Hazardous Materials Search



Attachment D
Native American Consultation

Notifications

Tribe
Calaveras Band of Miwuk Indians P.O. Box 899 West Point, CA 95255 Attn: Debra Grimes calaverasmiwukpreservation@gmail.com
Buena Vista Rancheria of Me-Wuk Indians 1418 20th Street Sacramento, CA 95811 troy.burdick@bia.gov
Ione Band of Miwok P.O. Box 699 Plymouth, CA 95669 Attn: Gretchen Cox gretchen@ionemiwok.net
Washoe Tribe of Nevada and California 919 Highway 395 South Gardnerville, NV 89410 robert.eben@bia.gov

ANGELS CAMP
CALIFORNIA

PLANNING DEPARTMENT

CITY OF ANGELS **PO Box 667,** 200 B Monte Verda Street, Angels Camp, CA 95222 P: (209) 736-1346 F: (209) 736-9048

September 21, 2020

Ms. Debra Grimes, Cultural Resources Specialist
Calaveras Band of Mi-Wuk Indians
P.O. Box 899
West Point, CA 95255

VIA E-Mail to: calaverasmiwukpreservation@gmail.com

RE: INVITATION TO BEGIN ASSEMBLY BILL 52 CONSULTATION FOR THE CITY OF ANGELS WATER TREATMENT PLANT UPGRADE PROJECT - ANGELS CAMP, CALAVERAS COUNTY CALIFORNIA

Dear Ms. Grimes:

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1 of the California Public Resources Code (PRC), the City of Angels Camp (City) is requesting to initiate AB 52 consultation with the Calaveras Band of Mi-Wuk Indians for the City of Angels Water Treatment Plant Upgrade Project (Project).

Project Description
The City intends to undertake improvements to the Water Treatment Plant located off Murphys Grade Road north of the City Limits within Calaveras County (**Figure 1**) and described in the attached. In addition, a new underground waterline, parallel to the existing water line and following the above-ground Utica Water and Power Company penstock between Murphys Grade Road and the Water Treatment Plant, is proposed.

An Initial Study is currently being prepared to satisfy the requirements of CEQA (PRC Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before they approve or implement those projects. The Initial Study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. In the case of the proposed project, the City is the lead agency and will use the Initial Study to determine whether the proposed project has a significant effect on the environment.

You are a traditionally and culturally affiliated California Native American tribal representative who has requested notice of proposed projects within the County that are subject to the requirements of AB 52. We are requesting any information that you may have regarding tribal cultural resources (as defined by PRC 21074) in the immediate

CITY OF ANGELS **PO Box 667,** 200 B Monte Verda Street, Angels Camp, CA 95222 P: (209) 736-1346 F: (209) 736-9048

vicinity of the project area so that this information can be incorporated into the project. Pursuant to AB 52, the City is requesting that you provide written notification within 30 days of receipt of this letter if you wish to consult on the proposed project.
We look forward to hearing your comments and concerns regarding the project.

If you have any questions, please feel free to contact me via email at tuolandplanner@gmail.com or by telephone at (209) 743-2323.

Respectfully,

Amy Augustine, AICP
City Planner

Enclosures:
Project description
Project maps

Figure 1: Project Location

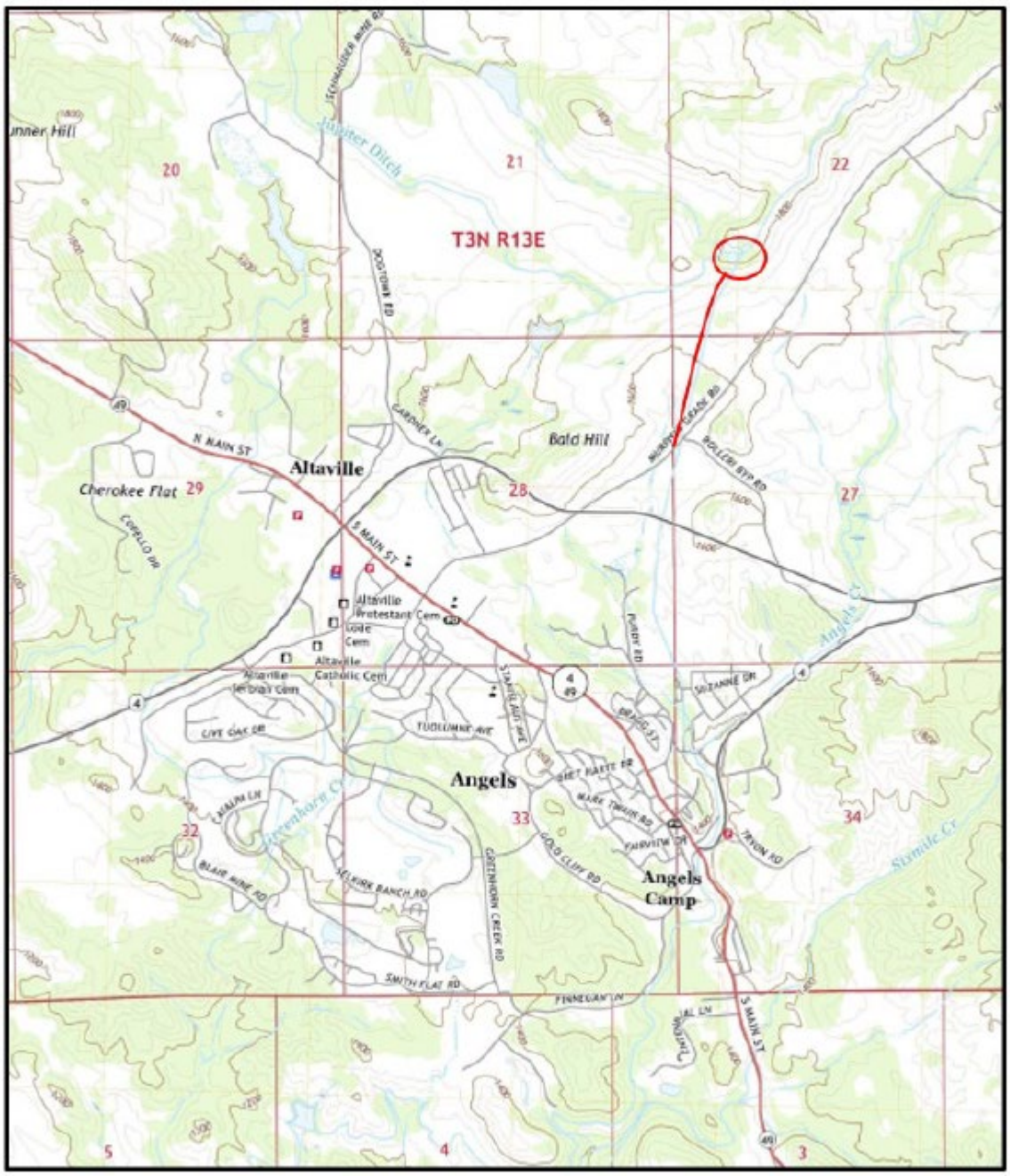
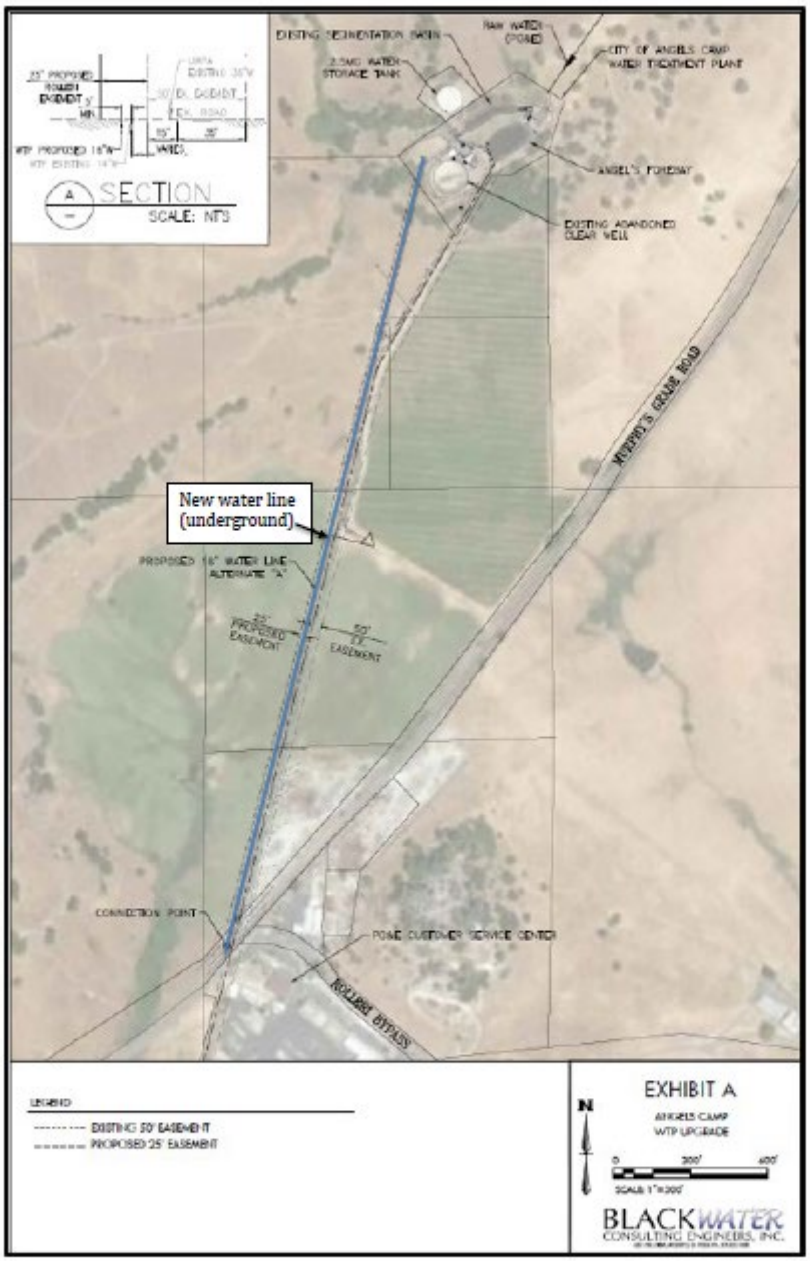


Figure 2: Primary Project Site

Figure 3: Proposed New Underground Water Line (adjacent to existing line)



1.1 PROJECT NEED

The system design, as described, creates the following issues:

- Water Supply. Before all *scheduled* maintenance operations (e.g., backwashing filters, cleaning sediment and flocculation basins), the water storage tank is filled to capacity to maintain service to the City customers and these scheduled operations generally are scheduled during low water demand periods. However, should the need for *unscheduled* repairs arise during high-demand periods or when the storage tank is low, water supply may be interrupted.
- Water Supply. The existing transmission pipeline between the finished water storage tank and the distribution main located in Murphy's Grade Road is over 50 years old, made of welded steel, and in poor condition. There is no backup to this segment of pipe and a pipe failure would cut off all water supplies to the City's system. There are no additional storage tanks and therefore the City does not have the ability to store water outside of the WTP site to provide an alternative water source.
- Time consuming, labor intensive, limits treated water production. In addition, outdated infrastructure (e.g., sedimentation basin) lacks modern design features and requires manual cleaning and maintenance that is both time-consuming, labor-intensive, and the WTP cannot produce water while many of these operations are in progress.
- Unnecessary water use. Water also can be unnecessarily used during the cleaning or maintenance activities. For example, 200,000± gallons of treated water is used during each backwash cycle while the treatment facility is off-line for backwashing all three filters.
- Discharge. The flocculation and sedimentation basins are cleaned quarterly and wastewater/settled solids from the process are discharged into an unnamed tributary. The composition of these waste streams may contain elevated levels of aluminum, iron, and manganese.
- Sediment overloads. The sedimentation basin is adversely affected by hydraulic short-circuiting. As a result, settling time is reduced, and the solids loading on downstream treatment units increases. The basin has been retrofitted with baffle curtains, but the short-circuiting problem persists.

1.2 PROJECT DESCRIPTION

To address the issues identified in the preceding sections, the City of Angels proposes the following improvements to the water treatment plant and transmission facilities over a two-phase, approximately five-year period:

- Add second flocculation basin to allow the WTP to continue operating when the existing flocculation basin is removed from service for maintenance or repairs. The additional flocculation basin would provide redundancy and capacity for future growth beyond 2031. This basin would be constructed parallel next to the existing basin.
- Repurpose the existing sedimentation basin to contain two concrete structures with plate settler inserts. The concrete structures will be configured parallel for redundancy to maintain plant operation during service and repairs. The structures could be sized for future capacity such that additional plate settler inserts could be added to the structure

itself. Because the concrete structures and plate settlers will be built into the repurposed basin, gravity flow from the flocculation basin will eliminate the need for pumping.

- Replace the three existing filters with two filters, each being 12 feet in diameter and 41 feet in length. Each filter will contain two cells and have a design flow capacity of 2,160 gpm which exceeds the projected 20-year Maximum Daily Demand (MDD). The cells in each filter act independently and allow for the other cells to continue treating water while one cell backwashes. This allows for redundancy in the system while still providing treatment capacity. By having these independent cells, the backwashing system becomes more water efficient, reducing the amount of water needed to backwash by 50-75%.
- Demolish and fill in the existing clear well to accommodate a new reclaim tank and reclaim water processing equipment. With the implementation of the recommended filter replacement, backwashing the improved filtration system will occur for three hours approximately once per week. The backwash water will be discharged directly to the new reclaim tank. The reclaim tank will be sized to contain the total volume of water generated by the backwash of all filters.

  The proposed treatment system for the reclaim water is an incline plate clarifier followed by a sludge press. The clarifier and press are a mechanical dewatering system with a significantly reduced footprint that not only meets the objectives of the Project by reclaiming up to 99% of backwash water, but is also modular, which allows for redundancy and future growth.

  Clarified effluent is collected in a common storage tank. Pumps will recycle up to 99% of the reclaim water back to the headworks to re-enter the WTP. The recycle line will be equipped with flow and turbidity monitors. Recycle flow will be less than or equal to 10% of the plant influent flow. Turbidity will be less than 2.0 Nephelometric Turbidity Units (NTU). The flow rate through the clarifier is dependent upon the recycle flow back to the plant's headworks. Low flow months will experience longer periods between backwash events therefore allowing for more time to process reclaim water prior to the next backwash. During high plant flows, recycle rates can increase therefore allowing reclaim water to be processed prior to the next backwash event.
- Water transmission line. Expand the current Rolleri easement (along the Project's access driveway) an additional 25 feet to install a new line and provide future accessibility. Resurface the existing paved driveway.

Phase 1: Demolish and fill-in the clear well.

Re-purpose to provide space for the reclaim tank and clarifying equipment. Install a new culvert from the existing weir box to the edge of the property to maintain flow to the Dog Town Ditch and allow movement between the equipment areas.

Divert raw water from the Angels Forebay through an existing pipeline to a new weir box to maintain the volume of water currently supplied to the unnamed tributary reflecting historic flows.

Divert sedimentation basin sludge and filter backwash water to the reclaim storage tank. The reclaimed water will be processed through a dewatering system and solids will be stored on a covered concrete pad for pick up and disposal. Effluent water from the dewatering system will be recycled back and blended into the treatment plant's headworks.

Relocate the existing septic system and use that area for dewatering equipment and solids drying and storage.

Replace the open ditch channel providing Dogtown Ditch water from the Angels Forebay to the property boundary. Replace the channel with a culvert and regrade to allow maintenance personnel movement between equipment. The culvert's existing headwall will be retained

Phase 2: Expand the plant's capacity to meet the projected maximum daily demand flow for the year 2031.

Demolish and re-design the sedimentation basin area to accommodate an additional flocculation basin and two new plate settler structures. Two new filter vessels will replace the existing three vessels to increase production, reduce backwash water by more than 50 percent, and allow the plant to remain online during backwashing. Additional sludge dewatering equipment and drying beds will be added to process the increased sludge volume.