Initial Study

Lower Kaweah Temporary Crossing Project

Prepared for:

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July 2022

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PROJECT INFORMATION

This document is the Initial Study for the potential environmental effects of the Kaweah Delta Water Conservation District's (KDWCD) Lower Kaweah Temporary Crossing Project (Project). KDWCD will act as the Lead Agency for this project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. Copies of all materials referenced in this report are available for review in the project file during regular business hours at 2979 N. Farmersville Blvd., Farmersville, CA 93223.

Project title

Lower Kaweah Temporary Crossing Project

Lead agency name and address

Kaweah Delta Water Conservation District
2975 N. Farmersville Blvd.
Farmersville, CA 93223

Contact person and phone number

Larry Dotson, Senior Engineer
559-747-5601

Project location

The Project is located in Tulare County in the San Joaquin Valley, approximately two miles southeast of the City of Woodlake (see Figure 1). The proposed Project site is oriented across a portion of the Lower Kaweah River, approximately 0.3 miles south of Avenue 332 and will be accessible by adjoining dirt roads. The temporary crossing of the Lower Kaweah River will be seated on three properties; Tulare County Assessor's Parcel Numbers 113-010-014, -003 & 113-060-013. The first two properties listed are considered Agricultural Preserves under Contract Number 05878.

Figure 1 – Location

Figure 2 – Site Aerial

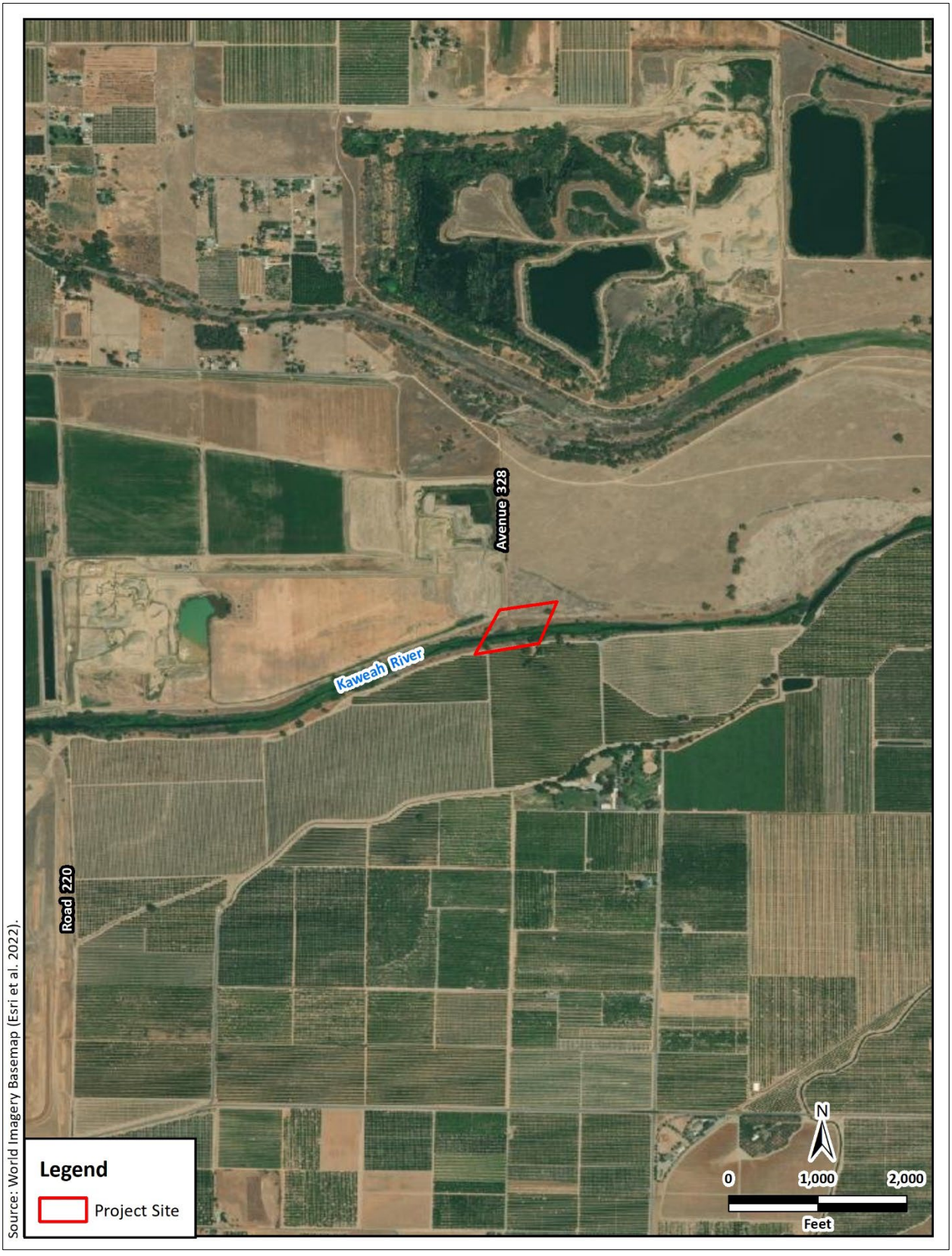
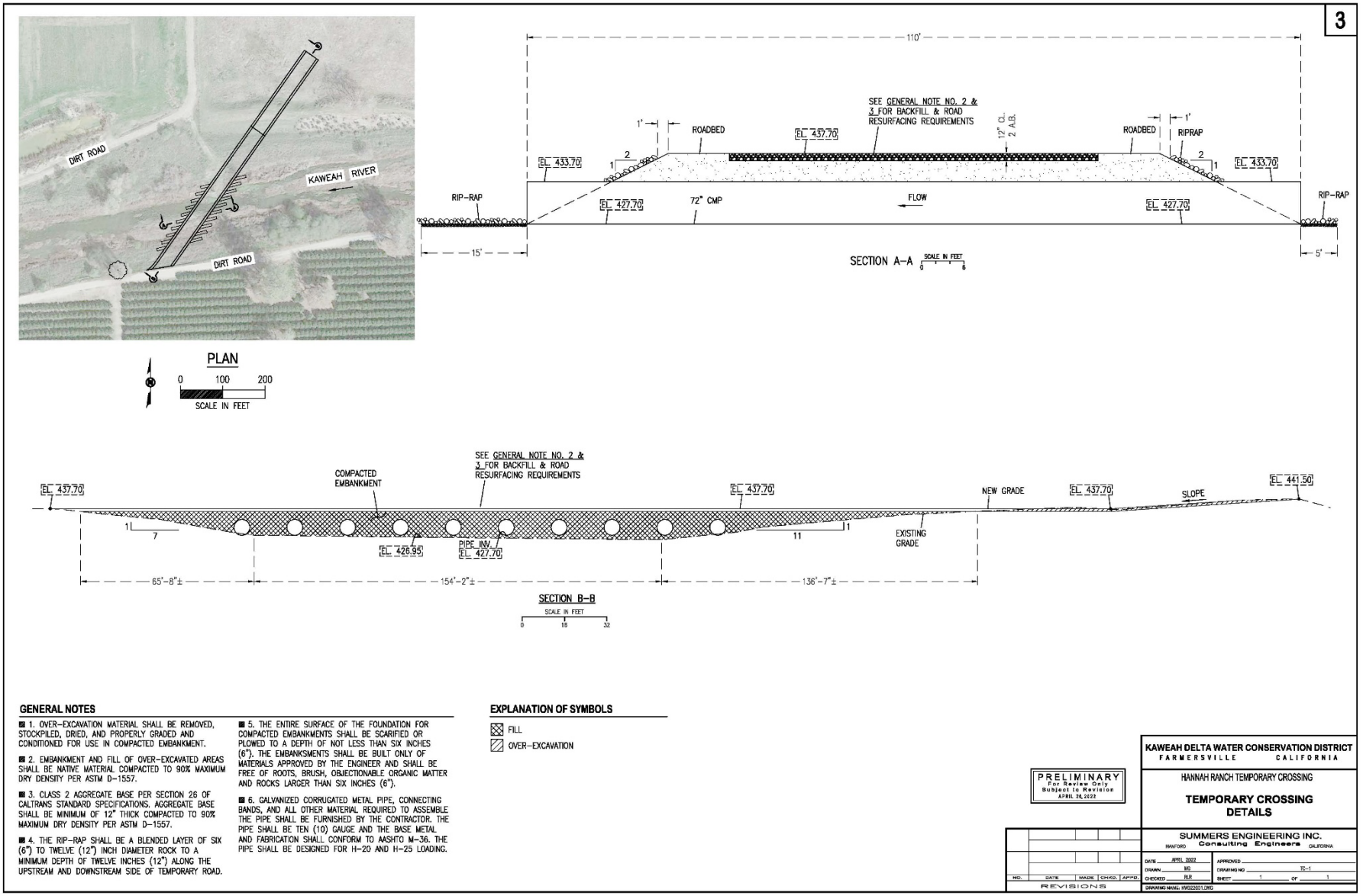


Figure 3 – Site Plan



Project sponsor's name/address

Kaweah Delta Water Conservation District
2975 N. Farmersville Blvd.
Farmersville, CA 93223

General plan designation

Exclusive Agriculture, minimum parcel size 40-acres (Tulare County)

Zoning

AE- 40 (Tulare County)

Project Description

The Kaweah Delta Water Conservation District (KDWCD or District) proposes to construct a temporary stream crossing over the Lower Kaweah River, which will provide a direct transportation route for heavy equipment. The temporary crossing will be required during the estimated 2-year development phase of Water Management Facility located on the south side of the Lower Kaweah River. Potential impacts resulting from the Water Management Facility construction and the trucks used to haul soil and heavy equipment have been analyzed in the Hannah Ranch Flood Control & Habitat Conservation Project Negative Declaration (SCH#2017071049).

The temporary stream crossing will consist of ten 6-foot diameter corrugated metal pipes, 80 foot in length, placed parallel to each other within the 100-foot-wide channel bed. The flow line of the pipes will be set to match the streambed grade and be covered with compacted native material no less than 4 feet above the top of pipe. Approaches on both sides of the channel will be cut into the banks to provide the crossing with a 40-foot-wide roadbed with 30-foot-wide, 12" thick gravel roadway surface. The crossing will span the channel a minimum of 220 feet and the adjoining approach ramps will be 100 feet in length, located through the channel banks. Upstream and downstream faces of the crossing will receive 1.5 to 2.0-foot-thick rip-rap armoring of 9" to 18" size to provide erosion protection. The total fill material of approximately 3,100 cubic yards (cy) will be required, as the temporary crossing is estimated at 2,400 cy of compacted native fill, 500 cy of roadway gravel and 200 cy of rip-rap. The cut of material from the channel banks required for the approach ramps is estimated to be 200 cy.

The Lower Kaweah River at the project site is an intermittent stream, with recognized non-flowing periods that regularly exceed several months during a yearly cycle. Construction will be

scheduled to coincide within the window of time of a non-flow period. During these non-flowing periods groundwater infiltration occurs in this section of the stream due to a combination of high groundwater levels and local hydro-geologic conditions. Therefore, the site will require dewatering during the period of the crossing's construction.

Surrounding Land Uses/Existing Conditions

The proposed Project site is a portion of the Lower Kaweah River, managed by KDWCD.

Lands surrounding the proposed Project are described as follows:

- North: Dirt road, undeveloped riverine habitat.
- South: Dirt road, undeveloped riverine habitat and orchards.
- East: Undeveloped riverine habitat.
- West: Undeveloped riverine habitat.

Other Public Agencies Involved

- State Water Resources Control Board
- Army Corps of Engineers
- California Department of Fish and Wildlife

Tribal Consultation

Notices have been sent out to associated Tribes in the area and the Kaweah Delta Water Conservation District has not received any project-specific correspondence to date.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

DETERMINATION

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment,

there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

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

July 19, 2022

Larry Dotson — Date

Senior Engineer

Kaweah Delta Water Conservation District

ENVIRONMENTAL CHECKLIST

I. AESTHETICS

Would the project:

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

ENVIRONMENTAL SETTING

The Project area is on the San Joaquin Valley floor near the western foothills of the Sierra Nevada mountain range, approximately two miles southeast of the City of Woodlake. On clear days, the peaks are visible from the majority of the City of Woodlake. The proposed temporary river crossing is located in an agricultural area and is oriented across a portion of the Lower Kaweah River, approximately 0.3 miles south of Avenue 332 and will be accessible by adjoining dirt roads. There are no adopted scenic resources or scenic vistas in the area. State Routes (SR) in the proposed Project vicinity include 198, 245 and 216.

RESPONSES

a. Have a substantial adverse effect on a scenic vista?

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

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and regulations governing scenic quality?

Less than Significant Impact. The Tulare County General Plan does not identify any scenic vistas within the proposed Project area; however, the peaks of the Sierra Nevada mountain range are clearly visible on many days of the year. A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area.

The proposed Project is temporary in nature and is consistent with the existing character and uses of the surrounding area, as the neighboring vicinities are primarily agriculturally related. As such, Project operations will not degrade the existing visual character of the site. Construction activities may be visible from the nearby roadside; however, the construction activities will be temporary in nature and will not affect a scenic vista.

There are no state designated scenic highways within the immediate proximity to the Project site. California Department of Transportation Scenic Highway Mapping System identifies SR 198 east of SR 99 as an Eligible State Scenic Highway.[1] This is the closest highway, located approximately two miles southeast of the project site. The river crossing project is temporary in nature and not expected to visually impact the surrounding areas. In addition, no official scenic highways or roadways are listed within the Project area or in the City of Woodlake's General Plan or Tulare County's General Plan. Based on the National Register of Historic Places (NRHP) and the City's General Plan, no historic buildings exist on the Project site. The proposed Project would not cause damage to rock outcroppings or historic buildings within a State scenic highway corridor. Any impacts would be considered ***less than significant***.

Mitigation Measures: None are required.

[1] California Department of Transportation. California State Scenic Highway System Map. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed June 2022.

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. Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as "light trespass." Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Current sources of light in the Project area are minimal and from the surrounding agricultural uses, and the few vehicles traveling along the nearby dirt roads. The Project will not include any new sources of lighting. Accordingly, the Project would not create substantial new sources of light or glare. Potential impacts are ***less than significant***.

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed temporary crossing site is currently comprised of a portion of the District-managed Lower Kaweah River and the surrounding riverine and undeveloped agricultural areas. The site is zoned AE-40 (Exclusive Agriculture) by the County of Tulare. The area on the north bank of the Lower Kaweah River is considered *Farmland of Local Importance*, while the land on the south bank is considered *Unique Farmland.*[2] *Grazing Land* is located between the previously mentioned areas.

RESPONSES

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 Project site is *Farmland of Local Importance*, *Unique Farmland* and *Grazing Land* according to the California Department of Agriculture Farmland Mapping and Monitoring Program and the site is zoned AE-40 (Exclusive Agriculture) by Tulare County. The nature of the proposed Project is temporary and no impacts to agriculture are expected as a result of Project implementation. No land use changes are proposed. Therefore, no land conversion from Farmland would occur as a result of the Project. The Project is not zoned for forestland and does not propose any zone changes related to forest or timberland. There is ***no impact***.

Mitigation Measures: None are required.

[2] Department of Conservation, California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed June 2022.

III. AIR QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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 or adversely affecting a substantial number of people)?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The climate of Tulare County and the San Joaquin Valley is characterized by long, hot summers and stagnant, foggy winters. Precipitation is low and temperature inversions are common. These characteristics are conducive to the formation and retention of air pollutants and are in part influenced by the surrounding mountains which intercept precipitation and act as a barrier to the passage of cold air and air pollutants.

The proposed Project lies within the San Joaquin Valley Air Basin, which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents

within that air basin. Areas are classified under the Federal Clean Air Act as either "attainment", "non-attainment", or "extreme non-attainment" areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is designated as a State and Federal extreme non-attainment area for O3, a State and Federal non-attainment area for PM2.5, a State non-attainment area for PM10, and Federal and State attainment area for CO, SO2, NO2, and Pb.

Standards and attainment status for listed pollutants in the Air District can be found in Table 1. Note that both state and federal standards are presented.

Table 1 - Standards and Attainment Status for Listed Pollutants in the Air District

	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.30 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	0.03 ppm (annual avg) 0.14 ppm (24-hr avg) 0.5 ppm (3-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1hr avg)
Lead	1.5 µg/m3 (calendar quarter) 0.15 µg/m3 (rolling 3-month avg)	1.5 µg/m3 (30-day avg)
Particulate Matter (PM10)	150 µg/m3 (24-hr avg)	20 µg/m3 (annual avg) 50 µg/m3 (24-hr avg)
Particulate Matter (PM2.5)	15 µg/m3 (annual avg)	35 µg/m3 (24-hr avg) 12 µg/m3 (annual avg)

µg/m3 = micrograms per cubic meter

Additional State regulations include:

CARB Portable Equipment Registration Program – This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program – The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off- road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently

developing a control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act – Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which was phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions levels.

RESPONSES

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?

Less Than Significant Impact. The nonattainment pollutants for the SJVAPCD are ozone, PM10 and PM2.5. Therefore, the pollutants of concern for this impact are ozone precursors, regional PM10, and PM2.5. Ozone is a regional pollutant formed by chemical reaction in the atmosphere, and the Project's incremental increase in ozone precursor generation is used to determine the potential air quality impacts, as set forth in the GAMAQI.

Construction of the proposed project involves improvements that will provide direct transportation access to vehicles and heavy equipment involved in the construction of the Water Management Facility being developed on behalf of the District, on the south side of the Lower Kaweah River. Project construction would result in short-term air pollutant emissions from use of construction equipment, earth-moving activities (grading), construction workers' commutes, materials deliveries and short-distance earth and debris hauling.

To aid in evaluating potentially significant construction and/or operational impacts of a project, SJVAPCD has prepared an advisory document, the Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI), which contains standard procedures for addressing air quality in CEQA documents.[3]

[3] Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). San Joaquin Valley Air Pollution Control District (SJVAPCD). February 19, 2015. https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed June 2022.

GAMAQI presents a three-tiered approach to air quality analysis. The Small Project Analysis Level (SPAL) is first used to screen the project for potentially significant impacts. A project that meets the screening criteria at this level requires no further analysis and air quality impacts of the project may be deemed less than significant. If a project does not meet all the criteria at this screening level, additional screening is recommended at the Cursory Analysis Level and, if warranted, the Full Analysis Level.

GAMAQI 5-3(a), which SJVAPCD recommends using as part of the initial screening process, shows the square footage of industrial space to be considered a SPAL project. The general light industry project size threshold is 280,000 square feet. The stream crossing project consists of a much smaller development footprint; the crossing is temporary but will allow the District's new Water Management Facility to be completed within the proposed two-year time frame. The average daily trips generated will be similar to those estimated for light general industry; thus, the project meets the SPAL criterion for project type and is excluded from quantifying criteria pollutant emissions for CEQA purposes.

SJVAPCD Regulation VIII mandates requirements for any type of ground moving activity and would be adhered to during the construction; however, during construction, air quality impacts would be less than SJVAPCD thresholds for non-attainment pollutants and operation of the project would not result in impacts to air quality standards for criteria pollutants.

The SJVAPCD accounts for cumulative impacts to air quality in its GAMAQI. The SJVAPCD considered basin-wide cumulative impacts to air quality when developing its significance thresholds. Since the project does not produce significant vehicle trips, the cumulative impacts to air quality from construction/operation of the proposed project are considered to be ***less than significant.***

Mitigation Measures: None are required.

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

Less than Significant Impact. The proposed Project is located in an agricultural area southeast of the City of Woodlake in Tulare County. The nearest resident is approximately 0.3 miles to the southeast. During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors; however, these odors would be temporary and are not likely to be noticeable for extended periods of time beyond the Project site.

As such, the proposed Project is not expected to produce any offensive odors that would result in frequent odor complaints. Any impacts would be ***less than significant.***

Mitigation Measures: None are required.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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 U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project site is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural and urban disturbances. Current agricultural endeavors in the region include dairies, groves, and row crops.

Like most of California, the Central San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures usually exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely raise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region.

A Biological Resource Evaluation (BRE) was prepared for the proposed Project by Colibri Ecological Consulting, LLC in June of 2022. The following descriptions and subsequent impact analysis is based on observations and expertise of Colibri Ecological Consulting. The BRE is provided in Appendix B.

A reconnaissance survey was completed on May 19, 2022 as part of the BRE. At the time of the survey, the Project site consisted of the Lower Kaweah River channel, riparian corridor, and adjacent uplands. The Project site supported disturbed grassland, riverine, and riparian land covers. The Project site was surrounded by orchard to the south, disturbed grassland to the northeast, and active construction to the northwest. The northeast section of the Project site contained a defunct detention basin. Dirt roads were atop the north and south stream banks.

The section of the Lower Kaweah River in the survey area has been channelized for water conveyance and flood control. The low-flow channel was sparsely vegetated with emergent vegetation. Dense

riparian forbs and shrubs lined the stream banks at or below the ordinary high-water mark (OHWM). Disturbed grassland was present above the OHWM of the stream banks. Substrate within the low-flow channel consisted of small boulders and cobble. Soil within the stream banks consisted of coarse silt below the OHWM and medium sand with sparse cobble above the OHWM. Zero to 12 inches of water was present in the low-flow channel at the time of survey.

A total of 62 plant species (38 native and 24 nonnative), one fish species, one amphibian species, two reptile species, 18 bird species, and one mammal species were observed during the survey. Site photos taken during the survey are provided in Appendix B.

Special Status Species

As part of the BRE, a desktop review of the USFWS special species database, the California Natural Diversity Database (CNDDB), the California Native Plant Society (CNPS) inventory database were reviewed for known special-status species in the area.

The USFWS species list for the Project included 12 species listed as threatened or endangered under the FESA. These 12 species have been excluded from further consideration due to either (1) the lack of habitat, (2) the Project site being outside the current range of the species, or (3) the presence of development that would otherwise preclude occurrence (Table 2). As identified in the species list, the Project site does not occur in USFWS-designated or proposed critical habitat for any species.

Searching the CNDDB for records of special-status species from the Woodlake 7.5-minute USGS topographic quad and the eight surrounding quads produced 209 records of 46 species (see Table 2). Of those 46 species, eight are not given further consideration because they are not CEQA-recognized as special-status species by state or federal regulatory agencies or public interest groups or are considered extirpated in California. Of the remaining 38 species, 16 are known from within 5 miles of the Project site. Of those species only two, northwestern pond turtle (*Actinemys marmorata* – SSSC) and western mastiff bat (*Eumops perotis californicus* – SSSC), could occur on or near the Project site (Table 2). In addition, pallid bat (*Antrozous pallidus* – SSSC) was identified in the nine-quad search and could occur on or near the Project site (Table 2).

Searching the CNPS inventory of rare and endangered plants of California yielded 24 species (CNPS 2022, Appendix B), 20 of which have a CRPR of 1 or 2 (Table 2). None of these species are expected to occur on or near the Project site due to either (1) lack of habitat, (2) the Project site being outside the current range of the species, or (3) lack of detection during the 19 May 2022 survey (Table 2).

Table 2 – Special-status species, listing status, habitats and potential to occur[4]

Species	Status[1]	Habitat	Potential to Occur[2]
Federally and State-Listed Endangered or Threatened Species			
Greene's tuctoria (*Tuctoria greenei*)	FE, 1B.1	Vernal pools in open grasslands below 3445 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools.
Hoover's spurge (*Euphorbia spurge*)	FT, 1B.2	Vernal pools and depressions.	**None.** Habitat lacking; the Project site lacked vernal pools.
Kaweah brodiaea (*Brodiaea insignis*)	SE, 1B.2	Valley and foothill grassland, meadows, and cismontane woodlands with granitic or clay soils.	**None.** Grassland was present; however, the Project site lacked granitic or clay soils.
San Joaquin adobe sunburst (*Pseudobahia peirsonii*)	FT, SE, 1B.1	Grassland and bare dark clay.	**None.** Grassland was present; however, the Project site lacked bare dark clay.
San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*)	FT, SE, 1B.1	Vernal pools at or below 2700 feet elevation.	**None.** Habitat lacking; the Project site lacks vernal pools.
Striped adobe-lily (*Fritillaria striata*)	ST, 1B.1	Grasslands, in deep, clayey soils of granitic origin.	**None.** Grassland habitat was present; however, the Project site lacks deep, clayey soils of granitic origin.
Monarch California overwintering population (*Danaus plexippus*)	FC	Groves of trees within 1.5 miles of the ocean that produce suitable micro-climates for overwintering such as high humidity, dappled sunlight, access to water	**None.** Habitat lacking; the Project site is not within 1.5 miles of the ocean.

[4] Colibri Ecological Consulting, LLC. Biological Resource Evaluation for the Lower Kaweah River Temporary Crossing Project. June 2022. Appendix B. Page 13.

Species	Status[1]	Habitat	Potential to Occur[2]
		and nectar, and protection from wind.	
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	Elderberry (*Sambucus* sp.) plants with stems > 1-inch diameter at ground level.	**None.** The Project site is outside of currently recognized range of this species.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Vernal pools and ponds.	**None.** Habitat lacking; the Project site lacks vernal pools or ponds.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE	Vernal pools, clay flats, alkaline pools, and ephemeral stock tanks.	**None.** Habitat lacking; the Project site lacked vernal pools, clay flats, alkaline pools, or ephemeral stock tanks.
Delta smelt (*Hypomesus transpacificus*)	FT, SE	Shallow, fresh, or slightly brackish backwater sloughs and edgewaters.	**None.** Habitat lacking; the Project site lacks connectivity to the aquatic habitat this species requires.
Blunt-nosed leopard lizard (*Gambelia sila*)	FE, SE	Upland scrub and sparsely vegetated grassland with small mammal burrows below 2400 feet elevation.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
California tiger salamander (***Ambystoma californiense***)	FT, ST	Vernal pools or seasonal ponds for breeding; small mammal burrows for upland refugia in natural grasslands.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
Foothill yellow-legged frog (*Rana boylii*)	SE, SSSC	Perennial streams and rivers with rocky substrates, and with open, sunny banks may be in forests, chaparral, or woodlands.	**None.** Although habitat is present, all nearby species occurrence records are historic. The species has been extirpated from the

Species	Status[1]	Habitat	Potential to Occur[2]
			area.
Giant garter snake (*Thamnophis gigas*)	FT, ST	Marshes, sloughs, drainage canals, irrigation ditches, and slow-moving creeks.	**None.** The Project site is outside the current known range of this species.
Bald eagle (*Haliaeetus leucocephalus)*	SE, FP	Large old-growth trees or snags in remote, mixed stands near water.	**None.** The Project site lacked old-growth trees.
California condor (*Gymnogyps californianus*)	FE, SE	Vast expanses of open savannah, grasslands, and foothill chaparral. Shallow caves or cliffs with minimal disturbance for nesting.	**None.** The Project site lacked shallow caves or cliffs.
Southwestern willow flycatcher (*Empidonax traillii extimus)*	FT, SE	Relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes and reservoirs.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
Tricolored blackbird (*Agelaius tricolor)*	ST	Large freshwater marshes, in large, dense stands of cattails or bulrushes or silage fields near dairies.	**None.** Cattail and bulrush stands on the Project site were too small to support tricolored blackbird nesting.
Fisher – Southern Sierra Nevada DPS (*Pekania pennanti)*	FE, ST	Large areas of mature, dense forest stands with snags and greater than 50% canopy closure	**None.** The Project site is outside the current known range of this species.
San Joaquin kit fox[3] (*Vulpes macrotis mutica*)	FE, ST	Grassland and upland scrub or fallowed agricultural lands adjacent to grasslands or upland scrub with friable soils and small mammal burrows.	**None.** Although the Project site contained grassland, it lacked friable soils and small mammal burrows.

Species	Status[1]	Habitat	Potential to Occur[2]
State Species of Special Concern			
Northern leopard frog (*Lithobates pipiens*)	SSSC	Wet meadows, canals, bogs, marshes, and reservoirs in grassland, forest, and woodland.	**None.** Habitat lacking; the Project site is outside the current known local range of this species.
Northwestern pond turtle (*Actinemys marmorata*)	SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation and woody debris for basking and adjacent natural upland areas for egg laying.	**Low.** The Lower Kaweah River provides aquatic habitat for the species on the Project site. Limited upland habitat is present along the stream banks and in the defunct detention basin north of the river.
Western spadefoot (*Spea hammondii*)	SSSC	Rain pools for breeding and small mammal burrows or other suitable refugia for nonbreeding upland cover.	**None.** Habitat lacking; vernal pools or other ephemeral pools were absent from the Project site.
Burrowing owl (*Athene cunicularia*)	SSSC	Grassland and upland scrub with friable soil; agricultural or other developed and disturbed areas with ground squirrel burrows.	**None.** The Project site contained disturbed grassland, but soils were not friable, and no burrows that could support the species were found. There are no CNDDB records from within 5 miles of the Project site.
American badger (*Taxidea taxus)*	SSSC	Open areas including meadows, grasslands, and chaparral with less than 50% plant cover, friable soils, and small mammal	**None.** The Project site contained grassland but lacked friable soils and small mammal burrows. There are no CNDDB records from within 5 miles of

Species	Status[1]	Habitat	Potential to Occur[2]
		burrows.	the Project site.
Pallid bat (*Antrozous pallidus*)	SSSC	Arid or semi-arid locations in rocky areas and sparsely vegetated grassland near water. Rock crevices, caves, mine shafts, bridges, building, and tree hollows for roosting.	**Low.** Trees in the Lower Kaweah River riparian corridor may provide roosting habitat for this species.
Western mastiff bat (*Eumops perotis californicus*)	SSSC	Roosts in crevices in face cliffs, tall buildings, trees, and tunnels in open semi-arid habitats.	**Low.** Trees in the Lower Kaweah River riparian corridor may provide roosting habitat for this species.
California Rare Plants			
Alkali-sink goldfields (*Lasthenia chrysantha)*	1B.1	Vernal pools and wet saline flats below 320 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools and wet saline flats.
American manna grass (*Glyceria grandis)*	2B.3	Wet places, meadows, lake and stream margins below 6890 feet elevation.	**None.** The Project site is outside the known local range of this species.
Calico monkeyflower (***Diplacus pictus***)	1B.2	Bare, sunny, shrubby areas around granite outcrops in the southern Sierra Nevada mountains at 442–4100 feet elevation.	**None.** Habitat lacking; the Project site lacks sunny, shrubby areas around granite outcrops.
Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*)	1B.1	Saltmarsh, playas, and vernal pools below 4000 feet elevation.	**None.** Habitat lacking; the Project site lacks saltmarsh, playas, and vernal pools.

Species	Status[1]	Habitat	Potential to Occur[2]
Earlimart orache **(*Atriplex cordulata var. erecticaulis*)**	1B.2	Saline or alkaline soils in Central Valley and foothill grassland below 230 feet elevation.	**None.** Habitat lacking; the Project site is above the known elevational range of this species.
Kaweah monkeyflower **(*Erythranthe norrisii)***	1B.3	Marble crevices at 1969–4265 feet elevation.	**None.** Habitat lacking; the Project site is below the known elevational range of this species.
Lesser saltscale **(*Atriplex minuscula)***	1B.1	Sandy alkaline soils in chenopod scrub, playa, and grassland in the San Joaquin Valley below 328 feet elevation.	**None.** Grassland habitat was present; however, the Project site lacked alkaline soils.
Madera leptosiphon **(*Leptosiphon serrulatus)***	1B.2	Woodlands, chaparral, and yellow pine forests in the Sierra Nevada foothills from Madera to Kern Counties.	**None.** Habitat lacking; the Project site lacked woodlands, chaparral, and yellow pine forests.
Mouse buckwheat **(*Eriogonum nudum var. murinum)***	1B.2	Sandy soils in the Kaweah River drainage at 1312– 2297 feet elevation.	**None.** Habitat lacking; the Project site is below the known elevational range of this species.
Recurved larkspur **(*Delphinium recurvatum)***	1B.2	Poorly drained, fine, alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland at 10–2800 feet elevation.	**None.** Grassland habitat was present; however, the Project site lacked alkaline soils.
Sanford's arrowhead **(*Sagittaria sanfordii)***	1B.2	Ponds, sloughs, and ditches at sea level to 650 feet elevation.	**None.** Potential habitat was present in the Kaweah River; however, no individuals were detected during the 19 May 2022 survey, which occurred during the bloom period of this species, and there are no occurrence

Species	Status[1]	Habitat	Potential to Occur[2]
			records from within 5 miles of the Project site.
Spiny-sepaled button-celery (*Eryngium spinosepalum)*	1B.2	Vernal pools and swales in valley and foothill grassland at 330–4200 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools and swales.
Vernal pool smallscale (*Atriplex persistens*)	1B.2	Alkaline vernal pools in the Central Valley below 377 feet elevation.	**None.** Habitat lacking; the Project site lacks alkaline vernal pools.
Winter's sunflower (*Helianthus winteri*)	1B.2	Steep, south-facing grassy slopes, rock outcrops, and road cuts at 590–1509 feet elevation.	**None.** Habitat lacking; the Project site is below the known elevational range of this species.

Status[1]	**Potential to Occur[2]**
FE = Federally listed Endangered	None: Species or sign not observed; conditions unsuitable for occurrence.
FT = Federally listed Threatened	Low: Neither species nor sign observed; conditions marginal for occurrence.
FP = State Fully Protected	Moderate: Neither species nor sign observed; conditions suitable for occurrence.
FC = Federal Candidate of listing under the FESA	High: Neither species nor sign observed; conditions highly suitable for occurrence.
SE = State listed Endangered	Present: Species or sign observed; conditions suitable for occurrence.
ST = State listed Threatened	
SSSC = State Species of Special Concern	

CNPS California Rare Plant Rank[1]:	**Threat Ranks[1]:**
1B – plants rare, threatened, or endangered in California and elsewhere.	0.1 – seriously threatened in California (> 80% of occurrences).

Species	Status[1]	Habitat	Potential to Occur[2]
2B – plants rare, threatened, or endangered in California but more common elsewhere.	0.2 – moderately threatened in California (20-80% of occurrences).		
3 – plants about which more information is needed.	0.3 – not very threatened in California (<20% of occurrences).		
4 – plants have limited distribution in California.			

Three special-status species could occur on or near the Project site based on the presence of habitat. These three species are described below.

Northwestern pond turtle (*Actinemys marmorata,* SSSC). Northwestern pond turtle (family *Emydidae*) is California's only native freshwater turtle. This species is long-lived, diurnal, and aquatic. It occurs in ponds, lakes, rivers, creeks, marshes, and irrigation ditches and requires exposed banks, logs, rocks, or cattail mats for basking.

Commercial harvesting beginning in the 19th century, wetland destruction and degradation in the early 20th century, and introduction of nonnative species including other turtle species and bullfrogs are the primary contributors to population declines. Mating occurs in April and May, after which females travel onto land to dig a nest, usually along stream or pond banks.

There is one species occurrence record of northwestern pond turtle from within 5 miles of the Project site: an undated CNDDB record from Lake Kaweah approximately 4.6 miles to the northeast. The Lower Kaweah River contains sufficient water and emergent vegetation to provide aquatic habitat for northwestern pond turtle. The disturbed grassland along the stream banks and the defunct detention basin northeast of the Project site provides potential upland nesting habitat. The presence of American bullfrog *(Lithobates catesbeianus*), a documented predator of northwestern pond turtle hatchlings, at the Project site may prevent the establishment of sustainable northwestern pond turtle populations. Due low habitat quality, the potential for this species to occur is low.

Pallid bat (*Antrozous pallidus*, SSSC). Pallid bat is a member of the family Vespertilionidae and is recognized as a Species of Special Concern by the CDFW. It is widespread in the western United States from southern British Columbia, Canada to northern Baja California, Mexico. In California, pallid bat is locally common year-round at low elevations, where it occupies dry, open areas in grassland, shrubland, woodland, and forest. Pallid bat is nocturnal and roosts during the day in caves, crevices in rocky

outcrops, mines, and occasionally tree hollows and buildings; night roosts tend to be in more open areas including porches. It forages almost exclusively on the ground, where it preys on insects, arachnids, beetles, moths, and scorpions; few prey items are taken aerially. Pallid bat hibernates during winter, usually near a day roost that it occupies in summer.

There are no CNDDB occurrence records of pallid bat from within 5 miles of the Project site. However, the Project site supports potential day roost habitat in the form of tree hollows along the Lower Kaweah River. The Project site contains open areas and riparian forest that may provide foraging habitat. Potential roost sites are limited, however, to possible tree cavities. Therefore, the species has a low potential to occur on the Project site.

Western mastiff bat (*Eumops perotis californicus*, SSSC). Western mastiff bat is most common in the southern half of California, but its range extends almost to the Oregon border. This species forages in large, open areas in habitats such as desert washes, floodplains, conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, and agricultural lands. Roosts include the undersides of large slabs or boulders, trees, cliff faces, and cracks in buildings. This species typically selects roost sites high above the ground that allow a vertical drop of at least 10 feet to initiate flight. There are three CNDDB occurrence records of western mastiff bat from within 5 miles of the Project site. The tall, mature trees on the Project site provide potential day roost habitat. The Project site contains open areas and riparian forest that may provide foraging habitat. Therefore, the species has a low potential to occur on the Project site.

Nesting Birds and the Migratory Bird Treaty Act

Migratory birds could nest on or near the Project site. Bird species that may nest on or near the property include, but are not limited to, acorn woodpecker (*Melanerpes fromicivorus*), California scrub-jay (*Aphelocoma californica*), and red-tailed hawk (*Buteo jamaicensis*).

Regulated Habitats

The Lower Kaweah River bisects the Project site. As a stream in California, it is under the regulatory jurisdiction of the CDFW; as a potential surface water in California, it is under the regulatory jurisdiction of the SWRCB. Downstream of the Project site, the Lower Kaweah River flows into Mill Creek, which flows into Cross Creek, and eventually the Tule River, a water of the United States. Consequently, the Lower Kaweah River appears to be a tributary to a water of the United States and is likely under the regulatory jurisdiction of the USACE. Because impacts to the Lower Kaweah River are anticipated, consultation with the CDFW, SWRCB, and USACE is recommended.

RESPONSES

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?

Less than Significant Impact with Mitigation Incorporation. The proposed Project could substantially impact three special-status species: Northwestern pond turtles, and roosting pallid and Western mastiff bats. Construction disturbance could result in the incidental loss of these special-status species and such loss could constitute a significant impact. As such, implementation of **Mitigation Measures BIO-1 and BIO-2** will ensure that any impacts remain ***less than significant***.

Mitigation Measures:

BIO-1 Protect Northwestern pond turtle.

A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that northwestern pond turtle will not be impacted during Project construction. The pre-construction clearance survey shall be conducted no more than 14 days prior to the start of construction activities. During this survey, the qualified biologist shall search all aquatic habitat for turtles and all potential nesting habitat on the Project site for active turtle nests. If a turtle is found, it will be allowed to the leave the area on its own. If an active turtle nest is found, the qualified biologist shall determine the extent of a construction-free buffer to be established and maintained around the nest for the duration of the nesting cycle. The biologist shall then work with construction personnel to install wildlife exclusion fencing along the buffer. This fencing should be a minimum of 36 inches tall and towed-in 6 inches below ground prior to construction activities. If fencing cannot be toed-in, the bottom of the fence will be weighted down with a continuous line of long, narrow sand bags or similar, to ensure there are no gaps under the fencing where wildlife could enter. One-way exit funnels directed away from construction activities will be installed to allow turtles and other small wildlife to exit the fenced enclosure.

BIO-2 Protect roosting pallid bat and Western mastiff bat.

A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that no roosting pallid bats or western mastiff bats will be disturbed during the implementation of the Project. A pre-construction clearance survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential roosting habitat in and immediately adjacent

to the impact areas. If an active roost is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the roost. If work cannot proceed without disturbing the roosting bats, work may need to be halted or redirected to other areas until the roost is no longer in use.

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 U.S. Fish and Wildlife Service?

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact with Mitigation.

Aquatic resources in the survey area consisted of the Lower Kaweah River, which is classified as riverine, lower perennial, unconsolidated bottom, and perennially flooded. The Lower Kaweah River is a natural waterway that has been channelized for water conveyance and flood control. The bed and banks have been modified to a trapezoidal shape. A distinct low-flow channel, active floodplain, and low terrace are present on both banks. The low-flow channel supported a substrate of cobble and boulders. Soil texture along the banks was coarse silt below the OHWM and medium sand above the OHWM.

The northeast section of the survey area contained a defunct detention basin. The basin is classified as a palustrine, forested, seasonally flooded wetland by the USFWS National Wetlands. The basin showed no signs of hydrology or recent use upon desktop review or during the 19 May 2022 survey. Consequently, the basin is excluded from further discussion in the report.

The Lower Kaweah River is managed by the KDWCD for flood control, irrigation, hydro-electricity, water storage, and other services to a 340,000-acre district in the south-central San Joaquin Valley. Historically, the Lower Kaweah River flowed into a vast area of seasonally flooded wetlands surrounding Tulare Lake, almost all of which have been diked and drained for agriculture. Under current conditions, flows upstream of the Project site are regulated by Terminus Dam and McKay Point Dam. Terminus Dam, approximately 4.6 miles upstream of the Project site, forms Lake Kaweah and regulates downstream flows for flood control, irrigation, and hydro-electricity. Flows below Terminus Dam typically peak in June and July and are lowest October–December. McKay Point Control Structure, approximately 1.3 miles upstream of the Project site, divides river flows between the Saint John's River and the Lower Kaweah River to satisfy downstream water rights. Downstream of the Project site, the

Lower Kaweah River empties into several distributaries including Outside Creek, Deep Creek, Mill Creek, and Packwood Creek. Mill Creek, the largest distributary, flows west for 25.1 miles to Cross Creek, which flows into the old channel of the Tule River. Most of the water in the Lower Kaweah River distributaries is diverted for irrigation and groundwater recharge. The Lower Kaweah River distributaries are also used to transport agricultural wastewater and, during wet years, for flood control.

The predominant soils in the area are Grangeville silt loam and Tujunga sand (NRCS 2022a, Appendix B). Grangeville silt loam is a well-drained soil with a moderately high to high capacity to transmit water. Grangeville silt loam occurs at the foot slope of alluvial fans. Tujunga sand is a somewhat excessively drained soil with a high to very high capacity to transmit water. Tujunga sand also occurs at the foot slope of alluvial fans. Grangeville silt loam is listed as a hydric soil in the National List of Hydric Soils.

The OHWM of the stream channel was identified by a defined change of vegetation species, change in sediment texture, and a break in bank slope. The low-flow channel was sparsely vegetated with emergent vegetation. Dominant vegetation within the low-flow channel included Baltic rush (*Juncus balticus*, FACW), iris-leaved rush (*Juncus xiphioides*, OBL), floating primrose willow (*Ludwigia peploides* ssp. *peploides*, OBL), narrow leaf cattail (*Typha angustifolia*, OBL), seep monkeyflower (*Erythranthe guttata*, OBL), water beard grass (*Polypogon viridis*, FACW), and water smartweed (*Persicaria amphibia*, OBL, Appendices C and D). The stream banks at and below the OHWM were densely vegetated with riparian forbs and shrubs. Dominant vegetation at and below the OHWM included arroyo willow (*Salix lasiolepis*, FACW), California mugwort (*Artemisia douglasiana*, FAC), and fringed willowherb (*Epilobium ciliatum*, FACW). Above the OHWM, the stream banks were dominated by nonnative grasses such as red brome (*Bromus rubens*, UPL) and ripgut brome (*Bromus diandrus*, UPL).

Potential Effects

The Lower Kaweah River flows into Mill Creek, which flows into Cross Creek, and eventually into the old channel of the Tule River, which could be considered a traditional navigable water under Section 404 of the Clean Water Act. Based on desktop review and field observations, the Lower Kaweah River at the Project site has flowing water throughout most of the year (Google 2022). The Lower Kaweah River meets the criteria of a relatively permanent water under Section 404 of the Clean Water Act. Thus, the Lower Kaweah River is likely regulated by the United States Army Corps of Engineers (USACE). The Lower Kaweah River contains surface water and has a defined bed and bank. Therefore, it is regulated by the Regional Water Quality Control Board (RWQCB) and the CDFW.

The proposed Project will impact 0.35 acres of the Lower Kaweah River below the OHWM and 0.61 acres of the Lower Kaweah River below the top of bank; however, all impacts will be temporary and only exist for the duration of the river crossing's use. Upon completion of the District's new Water Management

Facility, the crossing will be dismantled. Potential significant impacts are anticipated to wetlands and sensitive habitats, however, the incorporation of mitigation will reduce any impacts to ***less than significant.***

As such, any potential impacts will be mitigated by obtaining a Section 404 Permit from the USACE, which regulates the discharge of dredged or fill material into waters, including wetlands, and a Section 401 Permit from the RWQCB, which verifies that the project will comply with all state water quality standards. Impacts are considered ***less than significant***.

Mitigation Measures:

BIO-3: **Protect Wetland Resources**

The KDWCD shall obtain a Section 404 Permit from the USACE, which regulates the discharge of dredged or fill materials into waters, including wetlands. The KDWCD shall also obtain a Section 401 Permit from the RWQCB, which verifies that the project will comply with all state water quality standards.

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 Impact with Mitigation. The Project could impede the use of nursery sites for native birds protected under the MBTA and CFGC. Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort can be considered take under the MBTA and CFGC. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Construction activities such as excavating, trenching, and grading that disturb a nesting bird on the Project site or immediately adjacent to the construction zone could constitute a significant impact. The implementation of mitigation measure BIO-4 will reduce potential impacts to ***less than significant.***

Mitigation Measure:

BIO-4: Protect nesting birds.

To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during the implementation of the Project. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

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

No Impact. The County of Tulare's General Plan includes policies for the protection of biological resources. The proposed Project would not conflict with any of the adopted policies. There is ***no impact.***

Mitigation Measures: None are required.

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?

No Impact. The proposed Project site is not within an area set aside for the conservation of habitat or sensitive plant or animal species pursuant to a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, there is ***no impact***.

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:

		Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historical resource as defined in §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 formal cemeteries?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

The Project area consists of a portion of the District-managed Lower Kaweah River and the surrounding riverine and undeveloped agricultural lands. The improvements will provide direct transportation access to vehicles and heavy equipment involved in the construction of the Water Management Facility being developed on behalf of the District, on the south side of the Lower Kaweah River. The construction of the temporary crossing will require soil infill and ground disturbance.

A record search of site files and maps was conducted at the Southern San Joaquin Valley Archaeological Information Center (IC), California State University, Bakersfield (see Appendix C). A Sacred Lands File Request was also submitted to the Native American Heritage Commission (NAHC). These investigations determined that there have been no previous cultural resource studies conducted in the project area. There have been two studies conducted within the one-half mile radius.

There are no recorded resources within the project area. There is one recorded resource within the one-half mile radius: P-54-004885, 002403. This resource consists of a historic era levee. There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

RESPONSES

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 formal cemeteries?

Less Than Significant Impact With Mitigation. The Project area consists of disturbed agricultural lands and a dirt road to the north. However, land immediately adjacent to the Lower Kaweah River is fairly undisturbed. There are no known or visible cultural or archaeological resources, paleontological resources, or human remains that exist on the surface of the Project area.

Although no cultural or archaeological resources, paleontological resources or human remains have been identified in the project area, waterways and their surrounding regions are considered extremely sensitive for cultural resources, as indigenous people utilized these areas as permanent villages, temporary camps, and task specific sites. The possibility exists that such resources or remains may be discovered during Project site preparation, excavation and/or grading activities. Mitigation Measures CUL – 1 and CUL – 2 will be implemented to ensure that Project will result in ***less than significant impacts with mitigation***.

Mitigation Measures:

CUL – 1 Should evidence of prehistoric archeological resources be discovered during construction, the contractor shall halt all work within 25 feet of the find and the resource shall be evaluated by a qualified archaeologist. If evidence of any archaeological, cultural, and/or historical deposits is found, hand excavation and/or mechanical excavation shall proceed to evaluate the deposits for determination of significance as defined by the CEQA guidelines. The archaeologist shall submit reports, to the satisfaction of the District, describing the testing program and subsequent results. These reports shall identify any program mitigation that the project proponent shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of archaeological resources).

CUL – 2 In order to ensure that the proposed project does not impact buried human remains during project construction, the District shall be responsible for on-going monitoring of project construction. If buried human remains are encountered during construction, further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall be halted until the Tulare County coroner is contacted and

the coroner has made the determinations and notifications required pursuant to Health and Safety Code Section 7050.5. If the coroner determines that Health and Safety Code Section 7050.5(c) require that he give notice to the Native American Heritage Commission, then such notice shall be given within 24 hours, as required by Health and Safety Code Section 7050.5(c). In that event, the NAHC will conduct the notifications required by Public Resources Code Section 5097.98. Until the consultations described below have been completed, the landowner shall further ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices where Native American human remains are located, is not disturbed by further development activity until the landowner has discussed and conferred with the Most Likely Descendants on all reasonable options regarding the descendants' preferences and treatments, as prescribed by Public Resources Code Section 5097.98(b). The NAHC will mediate any disputes regarding treatment of remains in accordance with Public Resources Code Section 5097.94(k). The landowner shall be entitled to exercise rights established by Public Resources Code Section 5097.98(e) if any of the circumstances established by that provision become applicable.

VI. ENERGY

Would the project:

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

ENVIRONMENTAL SETTING

California's total energy consumption is second-highest in the nation, but, in 2019, the state's per capita energy consumption ranked 48th, due in part to its mild climate and its energy efficiency programs. In 2021, California ranked fourth in the nation in conventional hydroelectric generation and first as a producer of electricity from solar, geothermal, and biomass resources.[5]

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximately amounts of energy contained in common energy sources are as follows:

Energy Source	BTUs[6]
Gasoline	120,429 per gallon
Natural Gas	1,037 per cubic foot
Electricity	3,412 per kilowatt-hour

California electrical consumption in 2019 was 7,789.6 trillion BTU[7], as provided in Table 3, while total electrical consumption by Tulare County in 2020 was 15.842 trillion BTU.[8]

[5] U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed June 2022.
[6] U.S. Energy Information Administration. Energy Units and Calculators Explained. https://www.eia.gov/energyexplained/index.php?page=about_energy_units. Accessed June 2022.
[7] U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed June 2022.
[8] California Energy Commission. Electricity Consumption by County. http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed June 2022.

Table 3 – 2016 California Energy Consumption[9]

End User	BTU of energy consumed (in trillions)	Percentage of total consumption
Residential	1,455.7	18.7
Commercial	1,468.1	18.8
Industrial	1,806.2	23.2
Transportation	3,059.6	39.3
Total	**7,789.6**	--

The California Department of Transportation (Caltrans) reports that approximately 35.8 million vehicles were registered in the state in 2020, resulting in a total estimated 332.0 billion vehicles miles traveled (VMT).[10]

Applicable Regulations

California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)

California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design and installation achieve energy efficiency. The California Energy Code was first established in 1978 by the CEC in response to a legislative mandate to reduce California's energy consumption, and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The standards are updated periodically to increase the baseline energy efficiency requirements. The 2013 Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations. Although it was not originally intended to reduce greenhouse gas (GHG) emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

California Green Building Standards Code (Title 24, Part II, CALGreen)

The California Building Standards Commission adopted the California Green Buildings Standards Code (CALGreen in Part 11 of the Title 24 Building Standards Code) for all new construction statewide on July 17, 2008. Originally a volunteer measure, the code became mandatory in 2010 and the most recent update

[9] U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. https://www.eia.gov/state/?sid=CA#tabs-1. Accessed June 2022.
[10] Caltrans. June 2021. Caltrans Facts. https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/caltrans-fact-booklets/2021-caltrans-facts-a11y.pdf. Accessed June 2022.

(2019) will go into effect on January 1, 2020. CALGreen sets targets for energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including eco-friendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality. Mandatory measures for residential development pertain to green building; planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; environmental quality; and installer and special inspector qualifications.

Clean Energy and Pollution Reduction Act (SB 350)

The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.

Renewable Portfolio Standard (SB 1078 and SB 107)

Established in 2002 under SB 1078, the state's Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopt the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board, under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

RESPONSES

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

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The proposed improvements will provide direct transportation access to vehicles and heavy equipment involved in the construction of the Water Management Facility being developed on behalf of the District, on the south side of the Lower Kaweah River. The construction of the river crossing will be temporary. The Project at build-out may consume moderate amounts of energy in the short-term during Project construction; however, the crossing and associated improvements are passive and will not require substantial amounts of energy during Project operation.

During construction, the Project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as steel, pipes, and manufactured or processed materials such as lumber and glass. Title 24 Building Energy Efficiency Standards provide guidance on construction techniques to maximize energy conservation and it is expected that contractors and owners have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce materials costs. As such, it is anticipated that materials used in construction and construction vehicle fuel energy would not involve the wasteful, inefficient, or unnecessary consumption of energy.

Therefore, any impacts are ***less than significant***.

Mitigation Measures: None are required.

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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 most recently adopted Uniform Building Code	☐	☐	☒	☐

	creating substantial direct or indirect 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 resource or site or unique geologic feature?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proposed Project site is located just over two miles southeast of the City of Woodlake. The City is situated along the western slope of a northwest-trending belt of rocks comprising the Sierra Nevada and within the southern portion of the Cascade Range. The Sierra Nevada geomorphic province is primarily composed of cretaceous granitic plutons and remnants of Paleozoic and Mesozoic metavolcanic and metasedimentary rocks, and Cenozoic volcan and sedimentary rocks.

There are no known active earthquake faults in or near the City of Woodlake. According to the Woodlake General Plan, the nearest active faults are the San Andreas, 65 miles west; the Owens Valley, 75 miles east; and the White Wolf; 75 miles south.

RESPONSES

a-i. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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.

a-ii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

a-iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

a-iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Less Than Significant Impact. The proposed project site is not located in an earthquake fault zone as delineated by the 1972 Alquist-Priolo Earthquake Fault Zoning Map Act. The nearest known potentially active fault is the San Andreas Fault, located over 65 miles northwest of the site. No active faults have been mapped within the project boundaries, so there is no potential for fault rupture. It is anticipated that the proposed Project site would be subject to some ground acceleration and ground shaking associated with seismic activity during its design life. The Project site would be engineered and constructed in strict accordance with the earthquake resistant design requirements contained in the latest edition of the California Building Code (CBC) for seismic zone III, as well as Title 24 of the California Administrative Code, and therefore would avoid potential seismically induced hazards on planned structures. The impact of seismic hazards on the project would be ***less than significant.***

Mitigation Measures: None are required.

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

Less than Significant Impact. The proposed Project will construct a temporary crossing over a portion of the Lower Kaweah River, which will provide direct transportation access for vehicles and heavy equipment during the two-year development period of the District's Water Management Facility. The Project site has a generally flat topography and is in an established agricultural zone outside of a nearby urban area. Upstream and downstream faces of the crossing will receive 1.5 to 2.0-foot-thick rip-rap armoring of 9" to 18" size to provide erosion protection. The total fill material of approximately 3,100 cubic yards (cy) will be required, as the temporary crossing is estimated at 2,400 cy of compacted native fill, 500 cy of roadway gravel and 200 cy of rip-rap. The cut of material from the channel banks required for the approach ramps is estimated to be 200 cy. Project features would aim to preserve topsoil where possible. No soil will be removed. The crossing will be designed and sloped to minimize any resulting soil erosion. Therefore, the impact is ***less than significant***.

Mitigation Measures: None are required.

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?

Less than Significant Impact. As described in Responses (a.iii) and (a.iv) above, the proposed Project would require some excavation, in-fill and soil compaction in order to maintain ground stability at the temporary crossing; however, specific design parameters will prevent any landslides, lateral spreading,

subsidence, liquification or collapse of the crossing or the surrounding areas. Any impacts would be ***less than significant.***

Mitigation Measures: None are required.

d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

Less than Significant Impact. See Responses (c) and (a-ii). The impact is ***less than significant***.

Mitigation Measures: None are required.

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?

No Impact. The proposed Project does not include the installation of a septic system. Therefore, there would be ***no impact.***

Mitigation Measures: None are required.

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

Less Than Significant Impact. As identified in the previous cultural studies perform for the project site, there are no known paleontological resources on or near the site. (See Section V. for more details). Mitigation measures have been added that will protect unknown (buried) resources during construction, including paleontological resources. There are no unique geological features on site or in the area. Therefore, there is a ***less than significant impact.***

Mitigation Measures: None are required.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Various gases in the earth's atmosphere play an important role in moderating the earth's surface temperature. Solar radiation enters earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs are transparent to solar radiation but are effective in absorbing infrared radiation. Consequently, radiation that would otherwise escape back into space is retained, resulting in a warming of the earth's atmosphere. This phenomenon is known as the greenhouse effect. Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO_2), methane (CH_4), ozone, Nitrous Oxide (NO_x), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Global climate change is, indeed, a global issue. GHGs are global pollutants, unlike criteria pollutants and TACs (which are pollutants of regional and/or local concern). Global climate change, if it occurs, could potentially affect water resources in California. Rising temperatures could be anticipated to result in sea-level rise (as polar ice caps melt) and possibly change the timing and amount of precipitation, which could alter water quality. According to some, climate change could result in more extreme weather patterns; both heavier precipitation that could lead to flooding, as well as more extended drought periods. There is uncertainty regarding the timing, magnitude, and nature of the potential changes to water resources as a result of climate change; however, several trends are evident.

Snowpack and snowmelt may also be affected by climate change. Much of California's precipitation falls as snow in the Sierra Nevada and southern Cascades, and snowpack represents approximately 35 percent of the state's useable annual water supply. The snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended. As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt.

RESPONSES

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?

Less Than Significant Impact. The proposed Project would generate exhaust-related GHG emissions during construction resulting from construction equipment operation, material haul and delivery trucks, and by trips by construction worker vehicles. Construction-related GHG emissions would occur for approximately two months and would cease following completion of the Project. The proposed Project is not a land-use development project that would generate vehicle trips and is not a roadway capacity increasing project that could carry additional VMT. Therefore, the proposed Project would not result in a net increase in operational GHG emissions. Potential GHG impacts resulting from the previously mentioned Water Management Facility construction and the trucks used to haul soil and heavy equipment have been analyzed in the Hannah Ranch Flood Control & Habitat Conservation Project Negative Declaration (SCH#2017071049). As such, the proposed Project would not interfere or obstruct implementation of an applicable GHG emissions reduction plan. The proposed Project would be consistent with all applicable local plans, policies, and regulations for reducing GHG emissions. Any impacts related to GHG emissions would be ***less than significant.***

Mitigation Measures: None are required.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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	☐	☐	☐	☒

IX. HAZARDS AND HAZARDOUS MATERIALS **Would the project:**	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The area immediately surrounding the proposed Project consists primarily of agricultural uses. The site currently consists of a portion of the Lower Kaweah River and the surrounding undeveloped agricultural and riverine areas.

RESPONSES

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?

Less than Significant Impact. This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Proposed Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the submission and implementation of a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site. Therefore, no significant impacts would occur during construction activities.

The operational phase of the proposed Project would occur after construction is completed. The proposed Project includes land uses that are considered compatible with the surrounding uses. None of these land uses routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the potential exception of common commercial grade hazardous materials such as household and commercial cleaners, paint, etc. The proposed Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur. Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be ***less than significant***.

Mitigation Measures: None are required.

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

No Impact. No schools are located within 0.25 mile of the Project site. This condition precludes the possibility of activities associated with the proposed Project exposing schools within a 0.25-mile radius of the project site to hazardous materials. ***No impact*** would occur.

Mitigation Measures: None are required.

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. The proposed Project site is not located on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (Geotracker and DTSC Envirostor databases – accessed in June 2022).[11] There are no hazardous materials sites that impact the Project. As such, ***no impacts*** would occur that would create a significant hazard to the public or the environment.

Mitigation Measures: None are required.

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[11] California Department of Toxic Substances Control. Envirostor Database. http://www.envirostor.dtsc.ca.gov/public/map/?myaddress=woodlake+ca. Accessed June 2022.

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?

Less than Significant Impact. There are no private airstrips in the Project vicinity. The Woodlake Municipal Airport is located approximately 2.2 miles northwest of the site. The proposed site is located outside the Airport Land Use Plan's Safety Zones associated with the Woodlake Municipal Airport.[12] The proposed land use would not substantially contribute to the severity of an aircraft accident nor result in a substantial safety hazard for people residing or working in the Project area. Thus, any impacts are ***less than significant***.

Mitigation Measures: None are required.

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

No Impact. The Project will not interfere with any adopted emergency response or evacuation plan. There is ***no impact.***

Mitigation Measures: None are required.

g. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. There are no wildlands on or near the Project site. There is ***no impact***.

Mitigation Measures: None are required.

[12] Tulare County Comprehensive Airport Land Use Plan. December 2012. https://tularecounty.ca.gov/rma/rma-documents/planning-documents/tulare-county-comprehensive-airport-land-use-plan/. Accessed June 2022.

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i. Result in substantial erosion or siltation on- or off- site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The Project is located within the Greater Kaweah Groundwater Sustainability Agency (GKGSA) service area, which lies within the Kaweah Subbasin of the San Joaquin Valley Basin. The temporary crossing Project is located in the eastern area of the Greater Kaweah GSA, to the southeast of the City of Woodlake, with portions of the Eastern Kaweah GSA to the north and south.

In general, groundwater flows across the GKGSA in a southwesterly direction and to local cones of depression during the irrigation season. A single aquifer is present in the eastern half of the Subbasin but is split into two aquifers by the Corcoran Clay in the western half. Groundwater quality data are available for public water supply wells across the GKGSA area and from a limited sampling of domestic wells. Several legacy constituents of concern were identified due to concentrations near maximum contaminant levels (MCLs) or due to increasing trends in concentration, most notably arsenic, nitrate, certain volatile organics, and 1,2,3-trichloropropane (1,2,3 TCP).

Land subsidence has occurred throughout much of the GKGSA area, and the Kaweah Subbasin in general but data are limited in scale and frequency. The largest amounts of subsidence occurred along the western and southwestern portions of the GKGSA area. Greater amounts of subsidence are believed to have occurred beyond the Kaweah Subbasin to the west and south. Subsidence will occur when groundwater extraction decreases the water pressure in the aquifers (sand and gravel layers) and causes groundwater to flow out of the aquitards (clay layers). The lower water pressure in the clay layers allows the clay layers to compress which results in land subsidence. Sudden and variable land subsidence can damage infrastructure, including roads, bridges, canals, pipelines, and buildings. As much as 10 feet of

subsidence has occurred in the northwestern GKGSA area since 1950 and as much as 20 feet in the southwestern GKGSA area.

A water budget was developed for a 21-year period (1997-2017) and provides estimates of the physical net movement of water in and out of the GKGSA area on an annual basis, based on a 3-dimensional groundwater water model that was calibrated for the subbasin. During that period, average groundwater storage was estimated to be a net loss of 34.6 thousand acre-feet (TAF) per year due to a combination of natural percolation, water management activities within the GKGSA, and influences from neighboring GSAs both in the Kaweah Subbasin and in neighboring subbasins. The range of storage change was -337 to 512 TAF per year during water year conditions that varied from the most-dry to most-wet with a median index that could be classified as moderately dry.

RESPONSES

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The Project has the potential to impact water quality standards and/or waste discharge requirements during construction (temporary impacts) and operation. Impacts are discussed below.

Construction

The Lower Kaweah River at the Project site is an intermittent stream, with recognized non-flowing periods that regularly exceed several months during a yearly cycle. Construction will be scheduled to coincide within the window of time of a non-flow period. During these non-flowing periods groundwater infiltration occurs in this section of the stream due to a combination of high groundwater levels and local hydro-geologic conditions. Therefore, the site will require dewatering during the period of the crossing's construction.

Although the proposed Project site is relatively small in scale, grading, excavation and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical

equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of common sense, "good housekeeping" procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local water conveyance systems. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These Best Management Practices (BMPs) would be required in the Stormwater Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction. When properly designed and implemented, these "good-housekeeping" practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the National Pollution Discharge Elimination System (NPDES) Stormwater Program, the Project will be required to comply with existing regulatory requirements to prepare a SWPPP designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the Regional Water Quality Control Board (RWQCB) has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement.

Operation

KDWCD would utilize the temporary river crossing to provide direct transportation access for vehicles and heavy equipment during the two-year development of the District's Water Management Facility on the south side of the Lower Kaweah River. The ultimate completion of the Water Management Facility will enhance the District's ability to maintain sustainable water resources in the area. The crossing will be dismantled once the facility's construction is completed and the section of the Lower Kaweah River restored to its previous state. Therefore, any impacts are ***less than significant.***

Mitigation Measures: None are required.

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

Less than Significant Impact. Once operating, the proposed Project would advance the District's ability to complete the Water Management Facility on the south side of the Lower Kaweah River within the

proposed two-year period. The new Water Management Facility will allow for optimized water management practices and support the region's water resource conservation and sustainability goals. The proposed Project will improve water supply reliability and planning for future droughts or other water shortages. Any impacts would be ***less than significant***.

Mitigation Measures: None are required.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   i. result in substantial erosion or siltation on- or offsite;

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

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

   iv. impede or redirect flood flows?

The proposed Project includes minor changes to the existing river bed and may alter the stormwater drainage pattern of the area through installation of materials for the crossing and movement and/or compaction of soils. As previously mentioned, construction will occur during a non-flow period and the proposed Project will be required to comply with existing regulatory requirements to prepare a SWPPP which will limit on or offsite erosion or siltation. The Project would not otherwise degrade water quality. The project will have a ***less than significant impact.***

Mitigation Measures: None required.

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

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact.

The Project site is over 100 miles inland, which precludes the possibility for tsunamis. The Project does include ground disturbance within the floodway; however, construction activities would occur during the non-flow period. The temporary river crossing would be designed to not impede river flows when water is flowing. Project implementation will not conflict with any water quality control plans or sustainable groundwater management plan. Therefore, any impacts are ***less than significant***.

Mitigation Measures: None are required.

XI. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The proposed Project site is approximately two miles southeast of the City of Woodlake in Tulare County, in an agricultural area. The Project site is currently comprised of a portion of the Lower Kaweah River and the surrounding undeveloped agricultural and riverine areas, see Figure 2 – Aerial Map. The site is zoned AE-40 (Exclusive Agriculture, minimum parcel size 40-acres) by the County.

RESPONSES

a. Physically divide an established community?

No Impact. The construction and operation of the Project would not cause any land use changes in the surrounding vicinity nor would it divide an established community, as the temporary crossing is considered an acceptable use under the current zoning and land use designation. ***No impacts*** would occur as a result of this Project.

Mitigation Measures: None are required.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed Project will provide direct transportation access for vehicles and heavy equipment during the two-year development phase of the District's new Water Management Facility. The immediate vicinity of the proposed Project site is comprised of agricultural and undeveloped land uses. The area is highly disturbed with agricultural uses, with dirt roads immediately north of the site. The proposed Project has no characteristics that would physically divide the City of Woodlake or the surrounding community. Access to the existing surrounding establishments be improved.

The proposed temporary crossing would not conflict with current zoning in and around the Project site. Therefore, there is ***no impact.***

Mitigation Measures: None are required.

XII. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

There are no known mineral resources within the planning area and no known mining of mineral resources occurs in or near the City of Woodlake. The closest significant mineral resources consist of sand and gravel deposits along the St. Johns River southeast of Woodlake, near the Sierra Nevada foothills.[13]

RESPONSES

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. There are no known mineral resources in the proposed Project area and the site is not included in a State classified mineral resource zone. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

[13] City of Woodlake General Plan. Open Space, Parks, Recreation and Conservation Element. Page 7.

XIII. NOISE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The Project site is located outside the City of Woodlake in an agricultural area, see Figure 2 – Site Aerial.

RESPONSES

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?

Less than Significant Impact.

Short-term (Construction) Noise Impacts

Proposed Project construction related activities will involve temporary noise sources. Typical construction related equipment include graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 4, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 4
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in urban environments. Most residents of urban areas recognize this reality and expect to hear construction activities on occasion.

Long-term (Operational) Noise Impacts

The primary source of on-going noise from the proposed Project will consist of vehicles and heavy equipment utilizing the crossing to gain access to the construction site of the new Water Management Facility on the south side of the Lower Kaweah River. The motor noise will be temporary in nature and only exist until the completion of the facility. As such, any impacts would be ***less than significant***.

Mitigation Measures: None are required.

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

No Impact. The Project is located within the Tulare County Comprehensive Airport Land Use Plan but is located outside any associated Community Noise Equivalent Level contours. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XIV. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City of Woodlake's 2000 population was 6,651 up from the 1990 census figure of 5,678. The State Department of Finance, which provides population projections and estimates for cities and counties in California, estimated Woodlake's population to be 7,648 on January 1, 2022.[14]

The proposed stream crossing project is located in an agricultural area southeast of the City of Woodlake limits.

RESPONSESs

a. Induce substantial 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?

[14] State of California, Department of Finance. E-4 Population Estimates for Cities, Counties and the State, 2021-2022 with 2020 Census Benchmark. https://dof.ca.gov/forecasting/demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2021-2022-with-2020-census-benchmark/. Accessed June 2022.

No Impact. There are no new homes associated with the proposed Project and there are no residential structures currently on-site. The proposed Project would be a public works operation that would temporarily provide construction jobs in the Woodlake area, which could be readily filled by the existing employment base, given the County's existing unemployment rates. The proposed Project will not affect any regional population, housing, or employment projections anticipated by County policy documents. There is ***no impact***.

Mitigation Measures: None are required.

XV. PUBLIC SERVICES

Would the project:

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

ENVIRONMENTAL SETTING

The proposed Project site is located in an area that is already served by public service systems. The City of Woodlake Fire Department provides the city and the surrounding area with fire protection services. The Fire Department is approximately 2.7 miles northwest of the proposed Project site. The Woodlake Police Department is located approximately three miles northwest of the proposed Project site. The Woodlake Unified School District and Tulare County Office of Education serves the Project area and the City provides several types of parks and other public facilities.

RESPONSES

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?

Less than Significant Impact. The proposed Project site will continue to be served by the City of Woodlake Fire Department, which is approximately 2.7 miles northwest of the proposed Project site. No additional fire personnel or equipment is anticipated, as the site is already served by the Fire Station. The impact is ***less than significant***.

Police Protection?

Less than Significant Impact. The proposed Project will continue to be served by the City of Farmersville Police Department. No additional police personnel or equipment is anticipated. The impact is ***less than significant.***

Schools?

No Impact. The direct increase in demand for schools is normally associated with new residential projects that bring new families with school-aged children to a region. The proposed Project does not contain any residential uses. The proposed Project, therefore, would not result in an influx of new students in the Project area and is not expected to result in an increased demand upon District resources and would not require the construction of new facilities. There is ***no impact***.

Parks?

No Impact. The Project would not result in an increase in demand for parks and recreation facilities because it would not result in an increase in population. Accordingly, the proposed Project would have ***no impacts*** on parks.

Other public facilities?

No Impact. The proposed Project is within the land use and growth projections identified in the City's General Plan and other infrastructure studies. The Project, therefore, would not result in increased demand for, or impacts on, other public facilities such as library services. Accordingly, ***no impact*** would occur.

Mitigation Measures: None are required.

XVI. RECREATION

Would the project:

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

ENVIRONMENTAL SETTING

The City of Woodlake, approximately two miles northwest of the Project site, currently has two developed park sites and one privately owned park site, located in Olivewood Estates. Willow Court Park, containing 3.91 acres, contains a baseball filed, playground equipment and a low elevation area designated for storm water detention. Miller-Brown Park, containing 6.74 acres, houses playground equipment, picnic arbors, a skate park feature, and a basketball court. A small watercourse traverses the area. In addition to the city's parks, the athletic fields on the campuses of Woodlake's two school districts provide recreational opportunities after school hours.

RESPONSES

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?

No Impact. The proposed Project does not include the construction of residential uses and would not directly or indirectly induce population growth. Therefore, the proposed Project would not cause physical deterioration of existing recreational facilities from increased usage or result in the need for new or expanded recreational facilities. The Project would have ***no impact*** to existing parks.

Mitigation Measures: None are required.

XVII. TRANSPORTATION/ TRAFFIC **Would the project:**	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Would the project 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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The Project is located in Tulare County in the San Joaquin Valley, southeast of the southernmost limits of the City of Woodlake. The proposed Project site is oriented across a portion of the Lower Kaweah River, approximately 0.3 miles south of Avenue 332 and will be accessible by adjoining dirt roads. The temporary crossing of the Lower Kaweah River will be seated on three properties; Tulare County Assessor's Parcel Numbers 113-010-014, -003 & 113-060-013.

RESPONSES

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

b. Would the project conflict or be inconsistent with CEQA Guidelines 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?

Less Than Significant Impact. The Kaweah Delta Water Conservation District intends to construct a temporary river crossing. There would be no permanent staff to remain posted onsite. Once constructed, there would be an increase in traffic generated for the 2-year duration of the Water Management Facility construction period. However, the additional traffic will only impact nearby agricultural roads and dirt roads. There will be no change to the existing major local roadways as a result of Project implementation and as such, emergency access will not be impacted, nor will the site plan increase hazards to the local roadways. Therefore, this impact is ***less than significant***.

Mitigation Measures: None are required.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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, 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 the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

RESPONSES

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.

Less than Significant Impact. A Tribal Cultural Resource (TCR) is defined under Public Resources Code section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included and that is listed or eligible for inclusion in the California Register of Historic Resources or in a local register of historical resources, or if the District, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR. As discussed above, under Section V, Cultural Resources, criteria (b) and (d), no known archeological resources, ethnographic sites or Native American remains are located on the proposed Project site. As discussed under criterion (b) implementation of Mitigation Measure CUL-1 would reduce impacts to unknown archaeological deposits, including TCRs, to a less than significant level. As discussed under criterion (d), compliance with California Health and Safety Code Section 7050.5 would reduce the likelihood of disturbing or discovering human remains, including those of Native Americans.

An opportunity to request consultation has been provided to Native American tribes listed by the Native American Heritage Commission during the CEQA process as required by AB 52. No responses have been received to date. Any impacts to TCR would be considered ***less than significant***.

Mitigation Measures: No additional measures are required.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction 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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The Visalia Landfill plant is approximately 17 miles west of the proposed Project site, while the Woodlake Wastewater Treatment Plant is located approximately 2.2 miles northwest of the site.

RESPONSES

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction 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?

Less than Significant Impact. The proposed Project includes the construction of a temporary river crossing. The proposed Project would not require service for sewage disposal, water, or solid waste disposal. Any impacts would be ***less than significant***.

Mitigation Measures: None are required.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Human activities such as smoking, debris burning, and equipment operation are the major causes of wildland fires. Within Tulare County, over 1,029,130 acres (33% of the total area) are classified as "Very High" fire threat and approximately 454,680 acres (15% of the total area) are classified as "High" fire threat. The portion of the county that transitions from the valley floor into the foothills and mountains is characterized by high to very high threat of wildland fires.[15] While the City of Woodlake is nestled at the base of the foothills, the majority of the City is developed into urban uses or in active agriculture, severely

[15] Tulare County General Plan Background Report. February 2010. Page 8-21.

reducing the risk of wildland fire. According to the Tulare County Background Report Figure 8-2, the majority of the City has no threat of wildfire. The proposed Project site is relatively flat in an area actively utilized with primarily agricultural uses.

RESPONSES

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

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. The proposed Project is located in an area developed with agricultural uses, which precludes the risk of wildfire. The area is flat in nature which would limit the risk of downslope flooding and landslides, and limit any wildfire spread. As such, any wildfire risk to the project structures or people would be ***less than significant.***

Mitigation Measures: None are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Does the project have the potential to 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, 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?	☐	☒	☐	☐

RESPONSES

a. Does the project have the potential to 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, 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 Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to ***less than significant***.

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)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.). The impact is ***less than significant***.

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

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to ***less than significant.***

LIST OF PREPARERS

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Persons and Agencies Consulted

Kaweah Delta Water Conservation District

- Larry Dotson, Senior Engineer

California Historical Resources Information System

- Jeremy E. David, Assistant Coordinator

Appendix A

Project Plans

KAWEAH DELTA WATER CONSERVATION DISTRICT

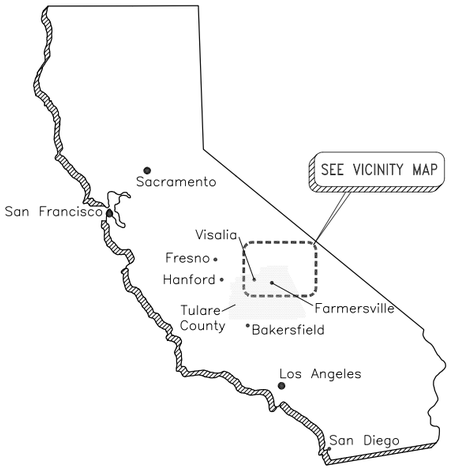
FARMERSVILLE CALIFORNIA

LOCATION MAP
HANNAH RANCH LOWER KAWEAH RIVER
TEMPORARY CROSSING

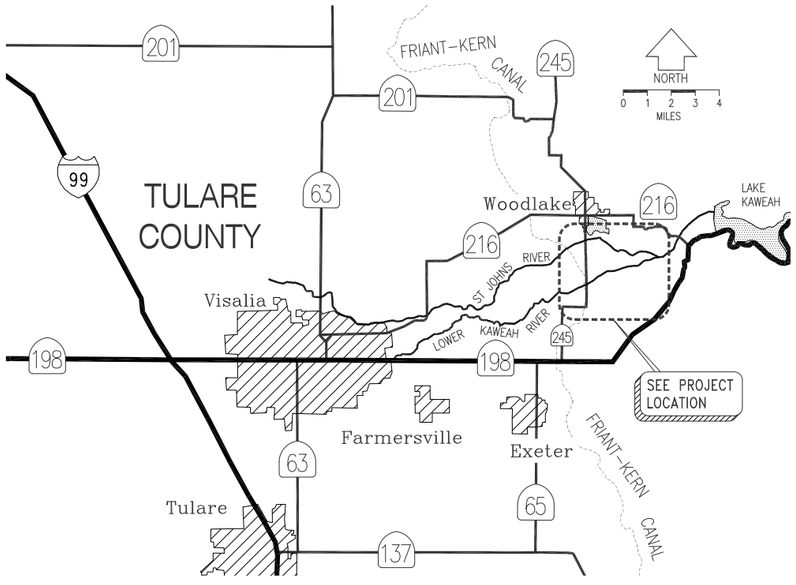
SUMMERS ENGINEERING INC.
Consulting Engineers
HANFORD CALIFORNIA

APRIL 2022

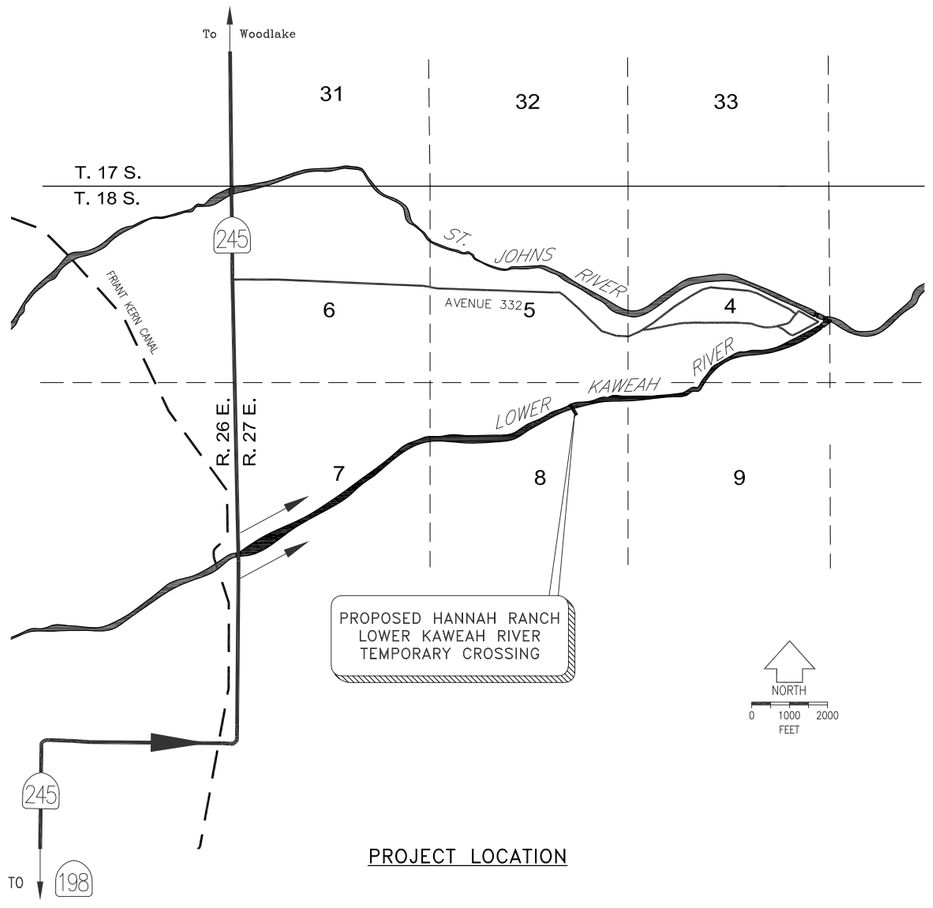
PRELIMINARY
For Review Only
Subject to Revision
APRIL 26, 2022



STATE OF CALIFORNIA



VICINITY MAP



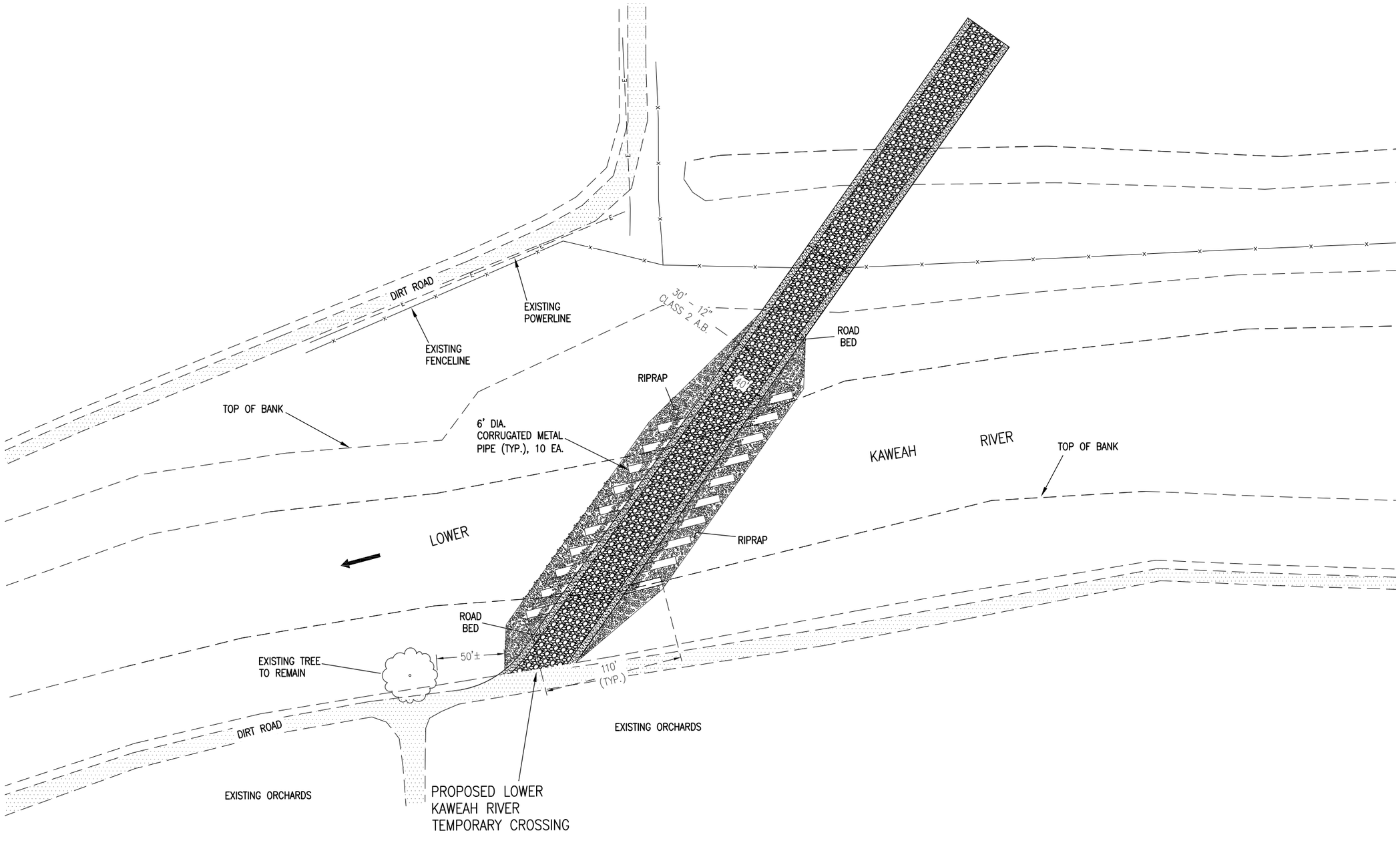
PROJECT LOCATION

DRAWING LIST

FIGURE NUMBER	TITLE	DRAWING NUMBER
1	LOCATION MAP	L-1
2	SITE PLAN	SP-1
3	TEMPORARY CROSSING DETAILS	TC-1

Call USA At Least 48 Hours Prior To Any Excavation 1-800-642-2444

DRAWING NO. L-1 KDW18010.dwg



PLAN

0 40 80

SCALE IN FEET

PRELIMINARY
For Review Only
Subject to Revision
APRIL 26, 2022

KAWEAH DELTA WATER CONSERVATION DISTRICT
FARMERSVILLE CALIFORNIA

HANNAH RANCH TEMPORARY CROSSING

SITE PLAN

SUMMERS ENGINEERING INC.
HANFORD Consulting Engineers CALIFORNIA

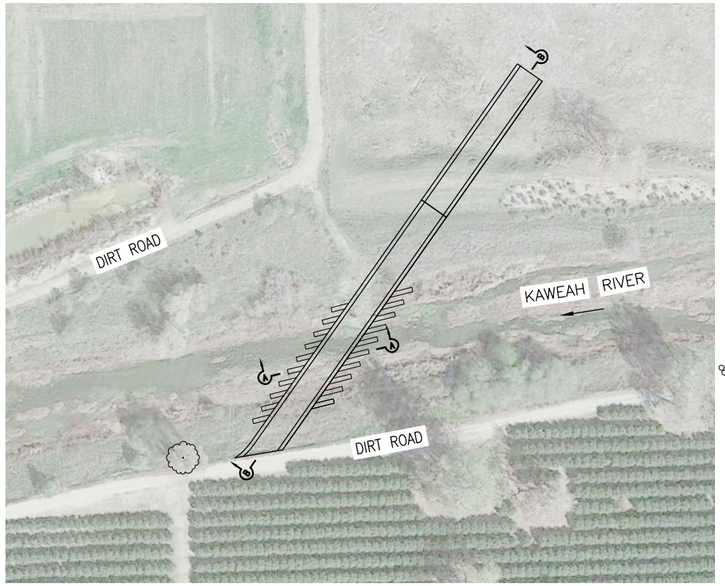
NO.	DATE	MADE	CHKD.	APPD.

REVISIONS

DATE APRIL 2022
DRAWN MG
CHECKED RLR

APPROVED
DRAWING NO. SP-1
SHEET 1 OF 1

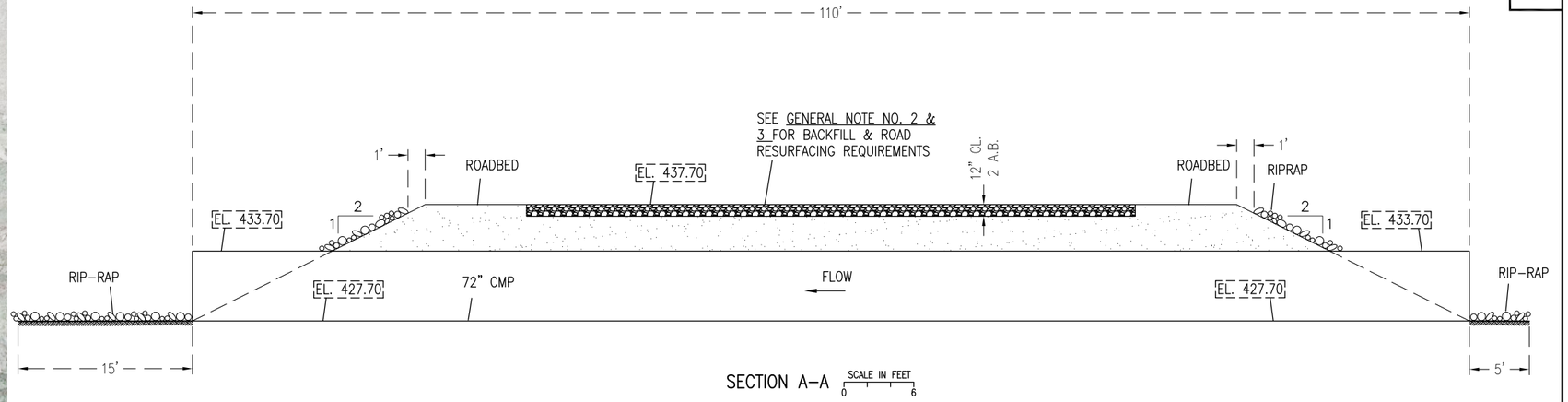
DRAWING NAME: KWD22001.DWG



PLAN

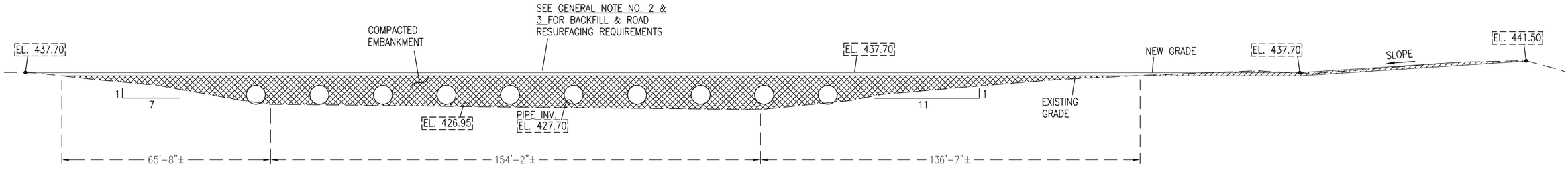
0 100 200

SCALE IN FEET



SECTION A–A

SCALE IN FEET 0 6



SECTION B–B

SCALE IN FEET 0 16 32

GENERAL NOTES

▨ 1. OVER–EXCAVATION MATERIAL SHALL BE REMOVED, STOCKPILED, DRIED, AND PROPERLY GRADED AND CONDITIONED FOR USE IN COMPACTED EMBANKMENT.

▨ 2. EMBANKMENT AND FILL OF OVER–EXCAVATED AREAS SHALL BE NATIVE MATERIAL COMPACTED TO 90% MAXIMUM DRY DENSITY PER ASTM D–1557.

▨ 3. CLASS 2 AGGREGATE BASE PER SECTION 26 OF CALTRANS STANDARD SPECIFICATIONS. AGGREGATE BASE SHALL BE MINIMUM OF 12" THICK COMPACTED TO 90% MAXIMUM DRY DENSITY PER ASTM D–1557.

▨ 4. THE RIP–RAP SHALL BE A BLENDED LAYER OF SIX (6") TO TWELVE (12") INCH DIAMETER ROCK TO A MINIMUM DEPTH OF TWELVE INCHES (12") ALONG THE UPSTREAM AND DOWNSTREAM SIDE OF TEMPORARY ROAD.

▨ 5. THE ENTIRE SURFACE OF THE FOUNDATION FOR COMPACTED EMBANKMENTS SHALL BE SCARIFIED OR PLOWED TO A DEPTH OF NOT LESS THAN SIX INCHES (6"). THE EMBANKSMENTS SHALL BE BUILT ONLY OF MATERIALS APPROVED BY THE ENGINEER AND SHALL BE FREE OF ROOTS, BRUSH, OBJECTIONABLE ORGANIC MATTER AND ROCKS LARGER THAN SIX INCHES (6").

▨ 6. GALVANIZED CORRUGATED METAL PIPE, CONNECTING BANDS, AND ALL OTHER MATERIAL REQUIRED TO ASSEMBLE THE PIPE SHALL BE FURNISHED BY THE CONTRACTOR. THE PIPE SHALL BE TEN (10) GAUGE AND THE BASE METAL AND FABRICATION SHALL CONFORM TO AASHTO M–36. THE PIPE SHALL BE DESIGNED FOR H–20 AND H–25 LOADING.

EXPLANATION OF SYMBOLS

▩ FILL

▨ OVER–EXCAVATION

PRELIMINARY
For Review Only
Subject to Revision
APRIL 26 2022

NO.	DATE	MADE	CHKD.	APPD.

REVISIONS

KAWEAH DELTA WATER CONSERVATION DISTRICT
FARMERSVILLE CALIFORNIA

HANNAH RANCH TEMPORARY CROSSING

TEMPORARY CROSSING DETAILS

SUMMERS ENGINEERING INC.
HANFORD Consulting Engineers CALIFORNIA

DATE APRIL 2022
DRAWN MG
CHECKED RLR

APPROVED
DRAWING NO. TC–1
SHEET 1 OF 1

DRAWING NAME: KWD22001.DWG

Appendix B

Biological Resource Evaluation

BIOLOGICAL RESOURCE EVALUATION

June 2022

Lower Kaweah River Temporary Crossing Project
TULARE COUNTY, CALIFORNIA

PREPARED FOR:
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113 N. Church Street, Suite 302
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PREPARED BY:
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Executive Summary

Kaweah Delta Water Conservation District (KDWCD) proposes to construct a temporary stream crossing across the Lower Kaweah River approximately 2 miles southeast of Woodlake in Tulare County, California. The proposed temporary stream crossing (Project) will provide a direct transportation route for heavy equipment in support of a KDWCD water management facility on the south side of the Lower Kaweah River.

To evaluate whether the Project may affect biological resources under California Environmental Quality Act (CEQA) purview, we (1) obtained lists of special-status species from the United States Fish and Wildlife Service, the California Department of Fish and Wildlife, and the California Native Plant Society; (2) reviewed other relevant background information such as aerial images and topographic maps; and (3) conducted a field reconnaissance survey at the Project site.

This biological resource evaluation summarizes (1) existing biological conditions on the Project site, (2) the potential for special-status species and regulated habitats to occur on or near the Project site, (3) the potential impacts of the proposed Project on biological resources and regulated habitats, and (4) measures to reduce those potential impacts to less-than-significant levels under CEQA.

We concluded the Project could affect three special-status wildlife species: northwestern pond turtle (*Actinemys marmorata*), pallid bat (*Antrozous pallidus*), and western mastiff bat (*Eumops perotis californicus*), all state species of special concern. Nesting migratory birds could also be impacted. However, impacts to all species can be reduced to less-than-significant levels with mitigation.

Abbreviations

Abbreviation	Definition
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
FC	Federal Candidate for listing under the FESA
FE	Federally listed as Endangered
FESA	Federal Endangered Species Act
FP	State Fully Protected
FT	Federally listed as Threatened
KDWCD	Kaweah Delta Water Conservation District
MBTA	Migratory Bird Treaty Act
NRCS	Natural Resources Conservation Science
OHWM	Ordinary High Water Mark
SE	State listed as Endangered
SSSC	State Species of Special Concern
ST	State listed as Threatened
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 Introduction

1.1 Background

Kaweah Delta Water Conservation District (KDWCD) proposes to construct a temporary stream crossing over the Lower Kaweah River (Project) approximately 2 miles southeast of Woodlake in Tulare County, California. The temporary crossing will support the multi-year construction of a KDWCD water management facility on the south side of the Lower Kaweah River. The 5.5-acre Project site currently supports disturbed grassland, riparian, and riverine land covers.

The purpose of this biological resource evaluation is to assess whether the Project will affect protected biological resources pursuant to California Environmental Quality Act (CEQA) guidelines. Such resources include species of plants or animals listed or proposed for listing under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA) as well as those covered under the Migratory Bird Treaty Act (MBTA), the California Native Plant Protection Act, and various other sections of California Fish and Game Code (CFGC). This biological resource evaluation also addresses Project-related impacts to regulated habitats, which are those under the jurisdiction of the United States Army Corps of Engineers (USACE), State Water Resources Control Board (SWRCB), or California Department of Fish and Wildlife (CDFW).

1.2 Project Description

The temporary stream crossing will consist of ten 6-foot-diameter corrugated metal pipes placed parallel to each other within the stream channel. The flow line of the pipes will be set to match the streambed grade. The pipes will be covered with at least 4 feet of compacted native fill topped with a 40-foot-wide roadbed with a 30-foot-wide, 12-inch-thick gravel road surface. The temporary crossing will span the channel a minimum of 220 feet. Approach ramps on both sides of the channel will be cut into the stream banks. The upstream and downstream faces of the temporary crossing will be armored with riprap to prevent soil erosion. The total fill material required for the temporary crossing will be approximately 3100 cubic yards consisting of 2400 cubic yards of compacted native fill, 500 cubic yards of gravel, and 200 cubic yards of riprap. Approximately 200 cubic yards of native material will be cut from the stream banks during approach ramp installation.

The Lower Kaweah River at the Project site has non-flowing periods that regularly exceed several months. Construction will be scheduled to coincide with a non-flowing period. During non-flowing periods, groundwater infiltration occurs in this section of the river due to a combination of high groundwater levels and local hydro-geologic conditions. Therefore, the Project site will require dewatering during construction.

The temporary stream crossing of the Lower Kaweah River will provide a direct transportation route for heavy equipment. The temporary crossing is needed to support a KDWCD water management facility on the south side of the Lower Kaweah River. Material excavated from the facility site will be transported and deposited on a prepared site on the north side of the Lower Kaweah River. The temporary crossing will be used for approximately two years during the construction phase of the water management facility.

1.3 Project Location

The 5.5-acre Project site is south of Avenue 328 and east of Road 220, approximately 2 miles southeast of Woodlake, Tulare County, California (Figure 1). The Project site spans the Lower Kaweah River. The northern stream bank of the Project site is accessed from Avenue 328; the southern stream bank of the Project site is accessed from Road 220 by driving 0.8 miles east along an unnamed dirt road (Figure 2).

Figure 1. Project site vicinity map.

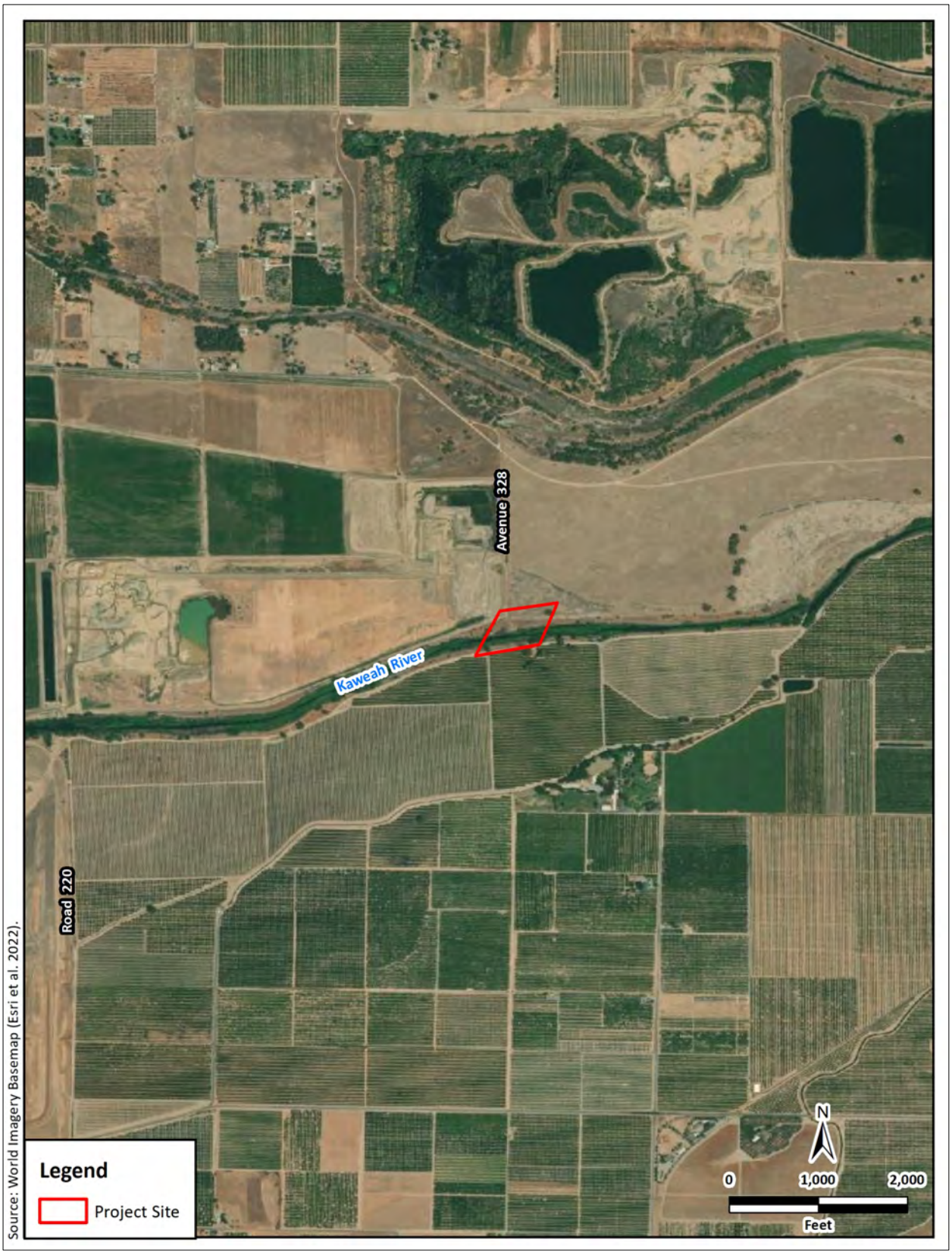

Figure 2. Project site map.

1.4 Regulatory Framework

The relevant state and federal regulatory requirements and policies that guide the impact analysis of the Project are summarized below.

1.4.1 State Requirements

California Department of Fish and Wildlife Jurisdiction. The CDFW has regulatory jurisdiction over lakes and streams in California. Activities that divert or obstruct the natural flow of a stream; substantially change its bed, channel, or bank; or use any materials (including vegetation) from the streambed, may require that the project applicant enter into a Lake and Streambed Alteration Agreement with the CDFW in accordance with California Fish and Game Code [CFGC] Section 1602.

California Endangered Species Act. The California Endangered Species Act (CESA) of 1970 (Fish and Game Code § 2050 et seq., and California Code of Regulations (CCR) Title 14, Subsection 670.2, 670.51) prohibits the take of species listed under CESA (14 CCR Subsection 670.2, 670.5). Take is defined as hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill. Under CESA, state agencies are required to consult with the CDFW when preparing CEQA documents. Consultation ensures that proposed projects or actions do not have a negative effect on state listed species. During consultation, CDFW determines whether take would occur and identifies "reasonable and prudent alternatives" for the project and conservation of special-status species. CDFW can authorize take of state listed species under Sections 2080.1 and 2081(b) of the CFGC in those cases where it is demonstrated that the impacts are minimized and mitigated. Take authorized under section 2081(b) must be minimized and fully mitigated. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Under CESA, CDFW is responsible for maintaining a list of threatened and endangered species designated under state law (Fish and Game Code § 2070). CDFW also maintains lists of species of special concern, which serve as "watch lists." Pursuant to the requirements of CESA, a state or local agency reviewing a proposed project within its jurisdiction must determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation. Impacts to species of concern or fully protected species would be considered significant under certain circumstances.

California Environmental Quality Act. The California Environmental Quality Act (CEQA) of 1970 (Subsections 21000–21178) requires that CDFW be consulted during the CEQA review process regarding impacts of proposed projects on special-status species. Special-status species are defined under CEQA Guidelines subsection 15380(b) and (d) as those listed under FESA and CESA and species that are not currently protected by statute or regulation but would be considered rare, threatened, or endangered under these criteria or by the scientific community. Therefore, species considered rare or endangered are addressed in this biological resource evaluation regardless of whether they are afforded protection through any other statute or regulation. The

California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity (CNPS 2022). Plants with Rare Plant Ranks 1A, 1B, 2A, or 2B are considered special-status species under CEQA.

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the FESA and the section of the CFGC dealing with rare and endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFW Service or CDFW (i.e., candidate species) would occur. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agency has an opportunity to designate the species as protected, if warranted.

California Native Plant Protection Act. The California Native Plant Protection Act of 1977 (CFGC §§ 1900–1913) requires all state agencies to use their authority to carry out programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require the project proponent to notify CDFW at least 10 days in advance of any change in land use, which allows CDFW to salvage listed plants that would otherwise be destroyed.

Nesting birds. CFGC Sections 3503, 3503.5, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. CFGC Section 3511 lists birds that are "Fully Protected" as those that may not be taken or possessed except under specific permit.

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act (California Water Code § 13000 et. sec.) was established in 1969 and entrusts the SWRCB and nine Regional Water Quality Control Boards (collectively Water Boards) with the responsibility to preserve and enhance all beneficial uses of California's diverse waters. The Act grants the Water Boards authority to establish water quality objectives and regulate point- and nonpoint-source pollution discharge to the state's surface and ground waters. Under the auspices of the United States Environmental Protection Agency, the Water Boards are responsible for certifying, under Section 401 of the federal Clean Water Act, that activities affecting waters of the United States comply California water quality standards. The Porter-Cologne Water Quality Control Act addresses all "waters of the State," which are more broadly defined than waters of the Unites States. Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state. They include artificial as well as natural water bodies and federally jurisdictional and federally non-jurisdictional waters. The Water Boards may issue a Waste Discharge Requirement permit for projects that will affect only federally non-jurisdictional waters of the State.

1.4.2 Federal Requirements

Federal Endangered Species Act. The United States Fish and Wildlife Services (USFWS) and the National Oceanographic and Atmospheric Association and National Marine Fisheries Service enforce the provisions stipulated in the FESA of 1973 (FESA, 16 United States Code [USC] § 1531 et seq.). Threatened and endangered species on the federal list (50 Code of Federal Regulations [CFR] 17.11 and 17.12) are protected from take unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. Pursuant to the requirements of the FESA, an agency reviewing a proposed action within its jurisdiction must determine whether any federally listed species may be present in the proposed action area and determine whether the proposed action may affect such species. Under the FESA, habitat loss is considered an effect to a species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species that is listed or proposed for listing under the FESA (16 USC § 1536[3], [4]). Therefore, proposed action-related effects to these species or their habitats would be considered significant and would require mitigation.

Migratory Bird Treaty Act. The federal MBTA (16 USC § 703, Supp. I, 1989) prohibits killing, possessing, trading, or other forms of take of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. "Take" is defined as the pursuing, hunting, shooting, capturing, collecting, or killing of birds, their nests, eggs, or young (16 USC § 703 and § 715n). This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA specifically protects migratory bird nests from possession, sale, purchase, barter transport, import, and export, and take. For nests, the definition of take per 50 CFR 10.12 is to collect. The MBTA does not include a definition of an "active nest." However, the "Migratory Bird Permit Memorandum" issued by the USFWS in 2003 and updated in 2018 clarifies the MBTA in that regard and states that the removal of nests, without eggs or birds, is legal under the MBTA, provided no possession (which is interpreted as holding the nest with the intent of retaining it) occurs during the destruction (USFWS 2018).

United States Army Corps of Engineers Jurisdiction. Areas meeting the regulatory definition of "waters of the United States" (jurisdictional waters) are subject to the jurisdiction of the USACE under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as waters of the United States, tributaries of waters otherwise defined as waters of the United States, the territorial seas, and wetlands adjacent to waters of the United States (33 CFR part 328.3). Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual* and related Regional Supplement (USACE 1987 and 2008). Construction activities, including direct removal, filling, hydrologic disruption, or other means in jurisdictional waters are regulated by the USACE. The

placement of dredged or fill material into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The SWRCB is the state agency (together with the Regional Water Quality Control Boards) charged with implementing water quality certification in California.

2.0 Methods

2.1 Desktop Review

As a framework for the evaluation and reconnaissance survey, we obtained an official USFWS species list for the Project (USFWS 2022a, Appendix A). In addition, we searched the California Natural Diversity Database (CNDDB, CDFW 2022, Appendix B) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2022, Appendix C) for records of special-status plant and animal species from the vicinity of the Project site. Regional lists of special-status species were compiled using CNDDB and CNPS database searches confined to the Woodlake 7.5-minute United States Geological Survey (USGS) topographic quadrangle, which encompasses the Project site, and the eight surrounding quadrangles (Kaweah, Shadequarter Mountain, Auckland, Chickencoop Canyon, Rocky Hill, Exeter, Stokes Mountain, and Ivanhoe). A local list of special-status species was compiled using CNDDB records from within 5 miles of the Project site. Species that lacked a CEQA-recognized special-status designation by state or federal regulatory agencies or public interest groups were omitted from the final list. Species for which the Project site does not provide habitat were eliminated from further consideration. We also reviewed aerial imagery from Google Earth (Google 2022) and other sources, USGS topographic maps, the Web Soil Survey (NRCS 2022), the National Wetlands Inventory (USFWS 2022b), and relevant literature.

2.2 Reconnaissance Survey

Colibri Senior Scientist Ryan Slezak conducted a field reconnaissance survey of the Project site on 19 May 2022. The Project site and a 50-foot buffer surrounding the Project site (Figure 3) were walked and thoroughly inspected to evaluate and document the potential for the area to support state or federally protected resources. All plants except those under cultivation or planted in residential areas and all vertebrate wildlife species observed within the survey area were identified and documented. The survey area was evaluated for the presence of regulated habitats, including lakes, streams, and other waters using methods described in the *Wetlands Delineation Manual* and regional supplement (USACE 1987, 2008) and as defined by the CDFW (https://www.wildlife.ca.gov/conservation/lsa) or under the Porter-Cologne Water Quality Control Act.

2.3 Significance Criteria

CEQA defines "significant effect on the environment" as "a substantial, or potentially substantial, adverse change in the environment" (California Public Resource Code § 21068). Under CEQA Guidelines Section 15065, a Project's effects on biological resources are deemed significant where the Project would do the following:

a) Substantially reduce the habitat of a fish or wildlife species,
b) Cause a fish or wildlife population to drop below self-sustaining levels,
c) Threaten to eliminate a plant or animal community, or
d) Substantially reduce the number or restrict the range of a rare or endangered plant or animal.

In addition to the Section 15065 criteria, Appendix G within the CEQA Guidelines includes six additional impacts to consider when analyzing the effects of a project. Under Appendix G, a project's effects on biological resources are deemed significant where the project would do any of the following:

e) 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 CDFW or USFWS;

f) 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 CDFW or USFWS;

g) 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;

h) 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;

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

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

These criteria were used to determine whether the potential effects of the Project on biological resources qualify as significant.

Figure 3. Reconnaissance survey area map.

3.0 Results

3.1 Desktop Review

The USFWS species list for the Project included 12 species listed as threatened or endangered under the FESA (USFWS 2022a, Table 1, Appendix A). These 12 species have been excluded from further consideration due to either (1) the lack of habitat, (2) the Project site being outside the current range of the species, or (3) the presence of development that would otherwise preclude occurrence (Table 1). As identified in the species list, the Project site does not occur in USFWS-designated or proposed critical habitat for any species (USFWS 2022a, Appendix A).

Searching the CNDDB for records of special-status species from the Woodlake 7.5-minute USGS topographic quad and the eight surrounding quads produced 209 records of 46 species (Table 1, Appendix B). Of those 46 species, eight are not given further consideration because they are not CEQA-recognized as special-status species by state or federal regulatory agencies or public interest groups or are considered extirpated in California (Appendix B). Of the remaining 38 species, 16 are known from within 5 miles of the Project site (Table 1, Figure 4). Of those species only two, northwestern pond turtle (*Actinemys marmorata* – SSSC) and western mastiff bat (*Eumops perotis californicus* – SSSC), could occur on or near the Project site (Table 1). In addition, pallid bat (*Antrozous pallidus* – SSSC) was identified in the nine-quad search and could occur on or near the Project site (Table 1).

Searching the CNPS inventory of rare and endangered plants of California yielded 24 species (CNPS 2022, Appendix C), 20 of which have a CRPR of 1 or 2 (Table 1). None of these species are expected to occur on or near the Project site due to either (1) lack of habitat, (2) the Project site being outside the current range of the species, or (3) lack of detection during the 19 May 2022 survey (Table 1).

The Project site is underlain by Grangeville silt loam, drained and Tujunga sand (NCRS 2022). The Project site is at 427–442 feet above mean sea level (Google 2022).

Table 1. Special-status species, their listing status, habitats, and potential to occur on or near the Project site.

Species	Status[1]	Habitat	Potential to Occur[2]
Federally and State-Listed Endangered or Threatened Species			
Greene's tuctoria[3] (*Tuctoria greenei*)	FE, 1B.1	Vernal pools in open grasslands below 3445 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools.
Hoover's spurge (*Euphorbia spurge*)	FT, 1B.2	Vernal pools and depressions.	**None.** Habitat lacking; the Project site lacked vernal pools.
Kaweah brodiaea[3] (*Brodiaea insignis*)	SE, 1B.2	Valley and foothill grassland, meadows, and cismontane woodlands with granitic or clay soils.	**None.** Grassland was present; however, the Project site lacked granitic or clay soils.
San Joaquin adobe sunburst[3] (*Pseudobahia peirsonii*)	FT, SE, 1B.1	Grassland and bare dark clay.	**None.** Grassland was present; however, the Project site lacked bare dark clay.
San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*)	FT, SE, 1B.1	Vernal pools at or below 2700 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools.
Striped adobe-lily (*Fritillaria striata*)	ST, 1B.1	Grasslands with deep, clayey soils of granitic origin.	**None.** Grassland was present; however, the Project site lacked deep, clayey soils of granitic origin.
Conservancy fairy shrimp (*Branchinecta conservatio*)	FE	Vernal pools and ponds.	**None.** Habitat lacking; the Project site lacked vernal pools or ponds.
Monarch California overwintering population (*Danaus plexippus*)	FC	Groves of trees within 1.5 miles of the ocean that produce suitable micro-climates for overwintering such as high humidity, dappled sunlight, access to water and nectar, and protection from wind.	**None.** Habitat lacking; the Project site is not within 1.5 miles of the ocean.

Valley elderberry longhorn beetle[3] (*Desmocerus californicus dimorphus*)	FT	Elderberry (*Sambucus* sp.) plants with stems > 1-inch diameter at ground level.	**None.** The Project site is outside the currently recognized range of this species.
Vernal pool fairy shrimp[3] (*Branchinecta lynchi*)	FT	Vernal pools and ponds.	**None.** Habitat lacking; the Project site lacked vernal pools or ponds.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE	Vernal pools, clay flats, alkaline pools, and ephemeral stock tanks.	**None.** Habitat lacking; the Project site lacked vernal pools, clay flats, alkaline pools, or ephemeral stock tanks.
Delta smelt (*Hypomesus transpacificus*)	FT, SE	Shallow, fresh, or slightly brackish backwater sloughs and edgewaters.	**None.** Habitat lacking; the Project site lacked connectivity to the aquatic habitat this species requires.
Blunt-nosed leopard lizard (*Gambelia sila*)	FE, SE	Upland scrub and sparsely vegetated grassland with small mammal burrows below 2400 feet elevation.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
California tiger salamander[3] (*Ambystoma californiense*)	FT, ST	Vernal pools or seasonal ponds for breeding; small mammal burrows for upland refugia in natural grasslands.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
Foothill yellow-legged frog[3] (*Rana boylii*)	SE, SSSC	Perennial streams and rivers with rocky substrates, and with open, sunny banks may be in forests, chaparral, or woodlands.	**None.** Although habitat is present, all nearby species occurrence records are historic. The species has been extirpated from the area
Giant garter snake (*Thamnophis gigas*)	FT, ST	Marshes, sloughs, drainage canals, irrigation ditches, and slow-moving creeks.	**None.** The Project site is outside the current known range of this species.

Bald eagle (*Haliaeetus leucocephalus*)	SE, FP	Large old-growth trees or snags in remote, mixed stands near water.	**None.** The Project site lacked old-growth trees.
California condor[3] (*Gymnogyps californianus*)	FE, SE	Vast expanses of open savannah, grasslands, and foothill chaparral. Shallow caves or cliffs with minimal disturbance for nesting.	**None.** The Project site lacked shallow caves or cliffs.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE, SE	Relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes and reservoirs.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
Tricolored blackbird[3] (*Agelaius tricolor*)	ST	Large freshwater marshes, in large, dense stands of cattails or bulrushes or silage fields near dairies.	**None.** Cattail and bulrush stands on the Project site were too small to support tricolored blackbird nesting.
Fisher – Southern Sierra Nevada DPS (*Pekania pennanti*)	FE, ST	Large areas of mature, dense forest stands with snags and greater than 50% canopy closure	**None.** The Project site is outside the current known range of this species.
San Joaquin kit fox[3] (*Vulpes macrotis mutica*)	FE, ST	Grassland and upland scrub or fallowed agricultural lands adjacent to grasslands or upland scrub with friable soils and small mammal burrows.	**None.** Although the Project site contained grassland, it lacked friable soils and small mammal burrows.
State Species of Special Concern			
Northern California legless lizard (*Anniella pulchra*)	SSSC	Moist, warm, loose soil with plant cover in beach dunes, chaparral, pine-oak woodlands, sandy	**None.** Habitat lacking; the Project site lacked the loose soil this species requires.

		areas, and stream terraces.	
Northern leopard frog (*Lithobates pipiens*)	SSSC	Wet meadows, canals, bogs, marshes, and reservoirs in grassland, forest, and woodland.	**None.** Habitat lacking; the Project site is outside the current known local range of this species.
Northwestern pond turtle[3] (*Actinemys marmorata*)	SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation and woody debris for basking, and adjacent natural upland areas for egg laying.	**Low.** The Lower Kaweah River provides aquatic habitat for the species on the Project site. Limited upland habitat is present along the stream banks and in the defunct detention basin north of the river.
Western spadefoot[3] (*Spea hammondii*)	SSSC	Rain pools for breeding and small mammal burrows or other suitable refugia for nonbreeding upland cover.	**None.** Habitat lacking; vernal pools or other ephemeral pools were absent from the Project site.
Burrowing owl (*Athene cunicularia*)	SSSC	Grassland and upland scrub with friable soil; agricultural or other developed and disturbed areas with ground squirrel burrows.	**None.** The Project site contained disturbed grassland, but soils were not friable, and no burrows that could support the species were found. There are no CNDDB records from within 5 miles of the Project site.
American badger (*Taxidea taxus*)	SSSC	Open areas including meadows, grasslands, and chaparral with less than 50% plant cover, friable soils, and small mammal burrows.	**None.** The Project site contained grassland but lacked friable soils and small mammal burrows. There are no CNDDB records from within 5 miles of the Project site.

Pallid bat (*Antrozous pallidus*)	SSSC	Arid or semi-arid locations in rocky areas and sparsely vegetated grassland near water. Rock crevices, caves, mine shafts, bridges, building, and tree hollows for roosting.	**Low.** Trees in the Lower Kaweah River riparian corridor may provide roosting habitat for this species.
Western mastiff bat[3] (*Eumops perotis californicus*)	SSSC	Roosts in crevices in face cliffs, tall buildings, trees, and tunnels in open semi-arid habitats.	**Low.** Trees in the Lower Kaweah River riparian corridor may provide roosting habitat for this species.
California Rare Plants			
Alkali-sink goldfields (*Lasthenia chrysantha*)	1B.1	Vernal pools and wet saline flats below 320 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools and wet saline flats.
American manna grass (*Glyceria grandis*)	2B.3	Wet places, meadows, lake and stream margins below 6890 feet elevation.	**None.** The Project site is outside the known local range of this species.
Calico monkeyflower[3] (*Diplacus pictus*)	1B.2	Bare, sunny, shrubby areas around granite outcrops in the southern Sierra Nevada mountains at 442–4100 feet elevation.	**None.** Habitat lacking; the Project site lacks sunny, shrubby areas around granite outcrops.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	1B.1	Saltmarsh, playas, and vernal pools below 4000 feet elevation.	**None.** Habitat lacking; the Project site lacks saltmarsh, playas, and vernal pools.
Earlimart orache (*Atriplex cordulata* var. *erecticaulis*)	1B.2	Saline or alkaline soils in Central Valley and foothill grassland below 230 feet elevation.	**None.** Habitat lacking; the Project site is above the known elevational range of this species.
Kaweah monkeyflower (*Erythranthe norrisii*)	1B.3	Marble crevices at 1969–4265 feet elevation.	**None.** Habitat lacking; the Project site is below the known

			elevational range of this species.
Lesser saltscale (*Atriplex minuscula*)	1B.1	Sandy alkaline soils in chenopod scrub, playa, and grassland in the San Joaquin Valley below 328 feet elevation.	**None.** Grassland habitat was present; however, the Project site lacked alkaline soils.
Madera leptosiphon (*Leptosiphon serrulatus*)	1B.2	Woodlands, chaparral, and yellow pine forests in the Sierra Nevada foothills from Madera to Kern counties.	**None.** Habitat lacking; the Project site lacked woodlands, chaparral, and yellow pine forests.
Mouse buckwheat (*Eriogonum nudum* var. *murinum*)	1B.2	Sandy soils in the Kaweah River drainage at 1312–2297 feet elevation.	**None.** Habitat lacking; the Project site is below the known elevational range of this species.
Recurved larkspur[3] (*Delphinium recurvatum*)	1B.2	Poorly drained, fine, alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland at 10–2800 feet elevation.	**None.** Grassland habitat was present; however, the Project site lacked alkaline soils.
Sanford's arrowhead (*Sagittaria sanfordii*)	1B.2	Ponds, sloughs, and ditches at sea level to 650 feet elevation.	**None.** Potential habitat was present in the Kaweah River; however, no individuals were detected during the 19 May 2022 survey, which occurred during the bloom period of this species, and there are no occurrence records from within 5 miles of the Project site.

Spiny-sepaled button-celery[3] (*Eryngium spinosepalum*)	1B.2	Vernal pools and swales in valley and foothill grassland at 330–4200 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools and swales.
Vernal pool smallscale (*Atriplex persistens*)	1B.2	Alkaline vernal pools in the Central Valley below 377 feet elevation.	**None.** Habitat lacking; the Project site lacked alkaline vernal pools.
Winter's sunflower (*Helianthus winteri*)	1B.2	Steep, south-facing grassy slopes, rock outcrops, and road cuts at 590–1509 feet elevation.	**None.** Habitat lacking; the Project site is below the known elevational range of this species.

CDFW (2022), CNPS (2022), USFWS (2022).

Status[1]	**Potential to Occur[2]**	
FE = Federally listed Endangered	None:	Species or sign not observed; conditions unsuitable for occurrence.
FT = Federally listed Threatened	Low:	Neither species nor sign observed; conditions marginal for occurrence.
FP = State Fully Protected	Moderate:	Neither species nor sign observed; conditions suitable for occurrence.
FC = Federal Candidate of listing under the FESA	High:	Neither species nor sign observed; conditions highly suitable for occurrence.
SE = State listed Endangered	Present:	Species or sign observed; conditions suitable for occurrence.
ST = State listed Threatened		
SSSC = State Species of Special Concern		

CNPS California Rare Plant Rank[1]:	**Threat Ranks[1]:**
1B – plants rare, threatened, or endangered in California and elsewhere.	0.1 – seriously threatened in California (> 80% of occurrences).
2B – plants rare, threatened, or endangered in California but more common elsewhere.	0.2 – moderately threatened in California (20-80% of occurrences).
3 – plants about which more information is needed.	0.3 – not very threatened in California (<20% of occurrences).
4 – plants have limited distribution in California.	

[3]Record from within 5 miles of the Project site.

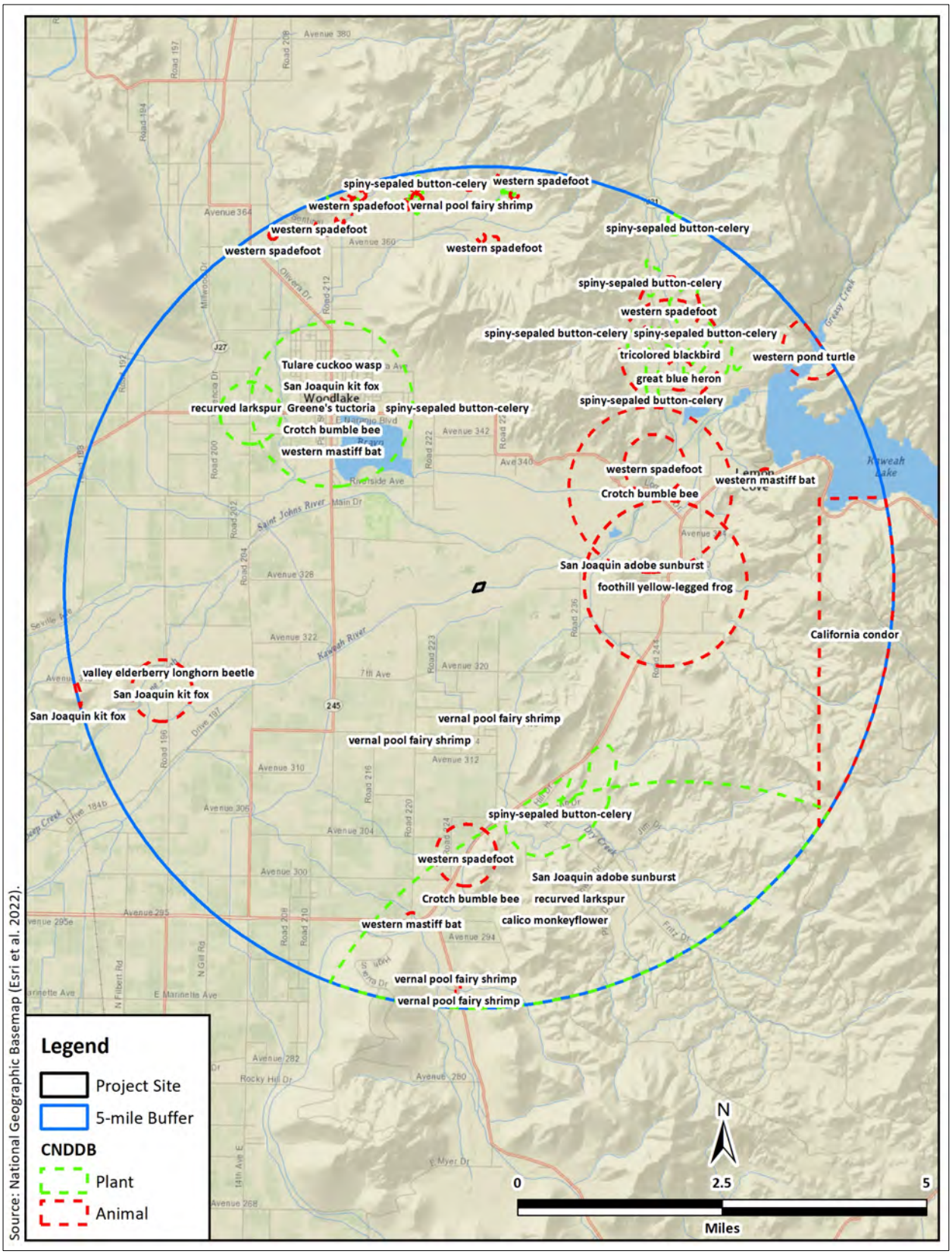

Figure 4. CNDDB occurrence map.

3.2 Reconnaissance Survey

3.2.1 Land Use and Habitats

The Project site consisted of the Lower Kaweah River channel, riparian corridor, and adjacent uplands. The Project site supported disturbed grassland, riverine, and riparian land covers (Figures 5–9). The Project site was surrounded by orchard to the south, disturbed grassland to the northeast, and active construction to the northwest. The northeast section of the Project site contained a defunct detention basin (Figure 10). Dirt roads were atop the north and south stream banks.

The section of the Lower Kaweah River in the survey area has been channelized for water conveyance and flood control. The low-flow channel was sparsely vegetated with emergent vegetation. Dense riparian forbs and shrubs lined the stream banks at or below the ordinary high water mark (OHWM). Disturbed grassland was present above the OHWM of the stream banks. Substrate within the low-flow channel consisted of small boulders and cobble. Soil within the stream banks consisted of coarse silt below the OHWM and medium sand with sparse cobble above the OHWM. Zero to 12 inches of water was present in the low-flow channel at the time of survey.

Figure 5. Photograph of the Project site, looking south.

Figure 6. Photograph of the Project site, looking northeast from an unnamed access road.

Figure 7. Photograph of the Project site, looking north, showing the Lower Kaweah River.

Figure 8. Photograph of the Lower Kaweah River, looking west (downstream) from the Project site.

Figure 9. Photograph of the Lower Kaweah River, looking east (upstream) from the Project site.

Figure 10. Photograph of the northeastern portion of the Project site, looking east from Avenue 328, showing a defunct detention basin.

3.2.2 Plant and Animal Species Observed

A total of 62 plant species (38 native and 24 nonnative), one fish species, one amphibian species, two reptile species, 18 bird species, and one mammal species were observed during the survey (Table 2).

Table 2. Plant and animal species observed during the reconnaissance survey.

Common Name	Scientific Name	Status
Plants		
Family Adoxaceae		
Blue elderberry	*Sambucus nigra* ssp. *cerulea*	Native
Family Amaranthaceae		
Rough pigweed	*Amaranthus retroflexus*	Nonnative
Family Apiaceae		
Poison hemlock	*Conium maculatum*	Nonnative
Family Araliaceae		
Whorled marsh pennywort	*Hydrocotyle verticillata*	Native
Family Asteraceae		
California mugwort	*Artemisia douglasiana*	Native
Canada horseweed	*Erigeron canadensis*	Native
Common sunflower	*Helianthus annuus*	Native
Italian thistle	*Carduus pycnocephalus*	Nonnative
Milk thistle	*Silybum marianum*	Nonnative
Mulefat	*Baccharis salicifolia*	Native
Prickly lettuce	*Lactuca serriola*	Nonnative
Rough cockleburr	*Xanthium strumarium*	Native
Silver wormwood	*Artemisia ludoviciana*	Native
Wild tarragon	*Artemisia dracunculus*	Native
Wire lettuce	*Stephanomeria pauciflora*	Native
Yellow star thistle	*Centaurea solstitialis*	Nonnative
Family Boraginaceae		
Common fiddleneck	*Amsinckia intermedia*	Native
Family Brassicaceae		
Black mustard	*Brassica nigra*	Nonnative
Curvepod yellowcress	*Rorippa curvisiliqua*	Native

Watercress	*Nasturtium officinale*	Native
Family Cucurbitaceae		
Coyote melon	*Cucurbita palmata*	Native
Family Cyperaceae		
Hardstem bulrush	*Schoenoplectus acutus*	Native
Tall flatsedge	*Cyperus eragrostis*	Native
Family Equisetaceae		
Field horsetail	*Equisetum arvense*	Native
Family Fabaceae		
Silver bush lupine	*Lupinus albifrons*	Native
Family Fagaceae		
Valley oak	*Quercus lobata*	Native
Family Geraniaceae		
Longbeak stork's bill	*Erodium botrys*	Nonnative
Family Gentianaceae		
Charming centaury	*Zeltnera venusta*	Native
Family Haloragaceae		
Parrot's feather	*Myriophyllum aquaticum*	Nonnative
Family Juncaceae		
Baltic rush	*Juncus balticus*	Native
Common toad rush	*Juncus bufonius*	Native
Iris-leaved rush	*Juncus xiphioides*	Native
Family Lamiaceae		
Pennyroyal	*Mentha pulegium*	Nonnative
Whitestem hedgenettle	*Stachys albens*	Native
Family Malvaceae		
Cheeseweed	*Malva parviflora*	Nonnative
Family Oleaceae		
Oregon ash	*Fraxinus latifolia*	Native
Family Onagraceae		
Floating primrose willow	*Ludwigia peploides* ssp. *peploides*	Native
Fringed willowherb	*Epilobium ciliatum*	Native
Marsh purslane	*Ludwigia palutris*	Native
Family Phrymaceae		

Seep monkeyflower	*Erythranthe guttata*	Native
Family Poaceae		
Annual rabbitsfoot grass	*Polypogon monspeliensis*	Nonnative
Red brome	*Bromus rubens*	Nonnative
Ripgut brome	*Bromus diandrus*	Nonnative
Soft brome	*Bromus hordeaceus*	Nonnative
Water beard grass	*Polypogon viridis*	Nonnative
Wild oat	*Avena fatua*	Nonnative
Family Plantaginaceae		
Water speedwell	*Veronica anagallis-aquatica*	Nonnative
Family Platanaceae		
Western sycamore	*Platanus racemosa*	Native
Family Polygonaceae		
Curly dock	*Rumex crispus*	Nonnative
Water smartweed	*Persicaria amphibia*	Native
Family Rosaceae		
California blackberry	*Rubus ursinus*	Native
Himalayan blackberry	*Rubus armeniacus*	Nonnative
Family Salicaceae		
Arroyo willow	*Salix lasiolepis*	Native
Fremont cottonwood	*Populus fremontii*	Native
Narrow-leaf willow	*Salix exigua*	Native
Family Scrophulariaceae		
Wand mullein	*Verbascum virgatum*	Nonnative
Family Solanaceae		
Jimsonweed	*Datura wrightii*	Native
Tree tobacco	*Nicotiana glauca*	Nonnative
Family Tamaricaceae		
Tamarisk	*Tamarix ramosissima*	Nonnative
Family Typhaceae		
Narrow leaf cattail	*Typha angustifolia*	Nonnative
Family Urticaceae		
Stinging nettle	*Urtica dioica*	Native
Family Verbenaceae		
Turkey tangle frogfruit	*Phyla nodiflora*	Native
Fishes		
Family Catostomidae		

Sacramento sucker	*Catostomus occidentalis*	--
Amphibians		
Family Ranidae		
American bullfrog	*Lithobates catesbeianus*	--
Reptiles		
Family Phrynosomatidae		
San Joaquin fence lizard	*Sceloporus occidentalis biseriatus*	--
Family Teiidae		
California whiptail	*Aspidoscelis tigris munda*	--
Birds		
Family Accipitridae		
Red-tailed hawk	*Buteo jamaicensis*	MBTA, CFGC
Family Ardeidae		
Great blue heron	*Ardea herodias*	MBTA, CFGC
Great egret	*Ardea alba*	MBTA, CFGC
Family Cathartidae		
Turkey vulture	*Cathartes aura*	MBTA, CFGC
Family Columbidae		
Mourning dove	*Zenaida macroura*	MBTA, CFGC
Family Corvidae		
California scrub-jay	*Aphelocoma californica*	MBTA, CFGC
Family Fringillidae		
House finch	*Haemorhous mexicanus*	MBTA, CFGC
Family Hirundinidae		
Violet-green swallow	*Tachycineta thalassina*	MBTA, CFGC
Family Icteridae		
Bullock's oriole	*Icterus bullockii*	MBTA, CFGC
Red-winged blackbird	*Agelaius phoeniceus*	MBTA, CFGC
Family Odontophoridae		
California quail	*Callipepla californica*	MBTA, CFGC
Family Pandionidae		
Osprey	*Pandion haliaetus*	MBTA, CFGC
Family Passerellidae		
Song sparrow	*Melospiza melodia*	MBTA, CFGC
Family Picidae		

Acorn woodpecker	*Melanerpes formicivorus*	MBTA, CFGC
Family Sturnidae		
European starling	*Sturnus vulgaris*	--
Family Trochilidae		
Anna's hummingbird	*Calypte anna*	MBTA, CFGC
Family Tyrannidae		
Ash-throated flycatcher	*Myiarchus cinerascens*	MBTA, CFGC
Western kingbird	*Tyrannus verticalis*	MBTA, CFGC
Mammals		
Family Canidae		
Coyote	*Canis latrans*	--

MBTA = Protected under the Migratory Bird Treaty Act (16 USC § 703 et seq.); CFGC = Protected under the California Fish and Game Code (FGC §§ 3503 and 3513).

3.2.3 Nesting Birds

Migratory birds could nest on or near the Project site. Bird species that may nest on or near the property include, but are not limited to, acorn woodpecker (*Melanerpes fromicivorus*), California scrub-jay (*Aphelocoma californica*), and red-tailed hawk (*Buteo jamaicensis*).

3.2.4 Regulated Habitats

The Lower Kaweah River bisects the Project site. As a stream in California, it is under the regulatory jurisdiction of the CDFW; as a potential surface water in California, it is under the regulatory jurisdiction of the SWRCB. Downstream of the Project site, the Lower Kaweah River flows into Mill Creek, which flows into Cross Creek, and eventually the Tule River, a water of the United States. Consequently, the Lower Kaweah River appears to be a tributary to a water of the United States and is likely under the regulatory jurisdiction of the USACE. Because impacts to the Lower Kaweah River are anticipated, consultation with the CDFW, SWRCB, and USACE is recommended.

3.3 Special-Status Species

The following three special-status species could occur on or near the Project site based on the presence of habitat:

3.3.1 Northwestern pond turtle (*Actinemys marmorata*, SSSC)

Northwestern pond turtle (family Emydidae) is California's only native freshwater turtle. This species is long-lived, diurnal, and aquatic (Nafis 2020). It occurs in ponds, lakes, rivers, creeks, marshes, and irrigation ditches and requires exposed banks, logs, rocks, or cattail mats for

basking (Nafis 2020). Commercial harvesting beginning in the 19th century, wetland destruction and degradation in the early 20th century, and introduction of nonnative species including other turtle species and bullfrogs are the primary contributors to population declines (Nafis 2020). Mating occurs in April and May, after which females travel onto land to dig a nest, usually along stream or pond banks (Nafis 2020).

There is one species occurrence record of northwestern pond turtle from within 5 miles of the Project site: an undated CNDDB record from Lake Kaweah approximately 4.6 miles to the northeast. The Lower Kaweah River contains sufficient water and emergent vegetation to provide aquatic habitat for northwestern pond turtle. The disturbed grassland along the stream banks and the defunct detention basin northeast of the Project site provide potential upland nesting habitat. The presence of American bullfrog (*Lithobates catesbeianus*), a documented predator of northwestern pond turtle hatchlings, at the Project site may prevent the establishment of sustainable northwestern pond turtle populations (Holland 1994). Due low habitat quality, the potential for this species to occur is low.

3.3.2 Pallid bat (*Antrozous pallidus*, SSSC)

Pallid bat is a member of the family Vespertilionidae and is recognized as a Species of Special Concern by the CDFW (CDFW 2022). It is widespread in the western United States from southern British Columbia, Canada to northern Baja California, Mexico (Hermanson and O'Shea 1983). In California, pallid bat is locally common year-round at low elevations, where it occupies dry, open areas in grassland, shrubland, woodland, and forest (Zeiner et al. 1988–1990). Pallid bat is nocturnal and roosts during the day in caves, crevices in rocky outcrops, mines, and occasionally tree hollows and buildings; night roosts tend to be in more open areas including porches (Zeiner et al. 1988–1990). It forages almost exclusively on the ground, where it preys on insects, arachnids, beetles, moths, and scorpions; few prey items are taken aerially (Zeiner et al. 1988–1990). Pallid bat hibernates during winter, usually near a day roost that it occupies in summer (Hermanson and O'Shea 1983).

There are no CNDDB occurrence records of pallid bat from within 5 miles of the Project site (CDFW 2022). However, the Project site supports potential day roost habitat in the form of tree hollows along the Lower Kaweah River. The Project site contains open areas and riparian forest that may provide foraging habitat. Potential roost sites are limited, however, to possible tree cavities. Therefore, the species has a low potential to occur on the Project site.

3.3.3 Western mastiff bat (*Eumops perotis californicus*, SSSC)

Western mastiff bat is most common in the southern half of California, but its range extends almost to the Oregon border (Cockrum 1960). This species forages in large, open areas in habitats such as desert washes, floodplains, conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, and agricultural lands (Cockrum 1960; Ross 1961). Roosts include the undersides of large slabs or boulders, trees, cliff faces, and cracks in buildings (Howell 1920; Dalquest 1946;

Barbour and Davis 1969). This species typically selects roost sites high above the ground that allow a vertical drop of at least 10 feet to initiate flight (Howell 1920).

There are three CNDDB occurrence records of western mastiff bat from within 5 miles of the Project site (CDFW 2022). The tall, mature trees on the Project site provide potential day roost habitat. The Project site contains open areas and riparian forest that may provide foraging habitat. Therefore, the species has a low potential to occur on the Project site.

4.0 Environmental Impacts

4.1 Significance Determinations

This Project, which will result in temporary impacts to the Lower Kaweah River, will not: (1) substantially reduce the habitat of a fish or wildlife species (criterion a) as no such habitat is present on the Project site; (2) cause a fish or wildlife population to drop below self-sustaining levels (criterion b) as no such potentially vulnerable population is known from the area; (3) threaten to eliminate a plant or animal community (criterion c) as no such potentially vulnerable communities are known from the area; (4) substantially reduce the number or restrict the range of a rare or endangered plant or animal (criterion d) as no such potentially vulnerable species are known from the area; (5) 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 CDFW or USFWS (criterion f) as no riparian habitat or other sensitive natural community was present in the survey area; (6) 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 (criterion g) as no impacts to wetlands will occur; (7) conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (criterion i) as no trees or biologically sensitive areas will be impacted; or (8) conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan (criterion j) as no such plan has been adopted. Thus, these significance criteria are not analyzed further.

The remaining statutorily defined criteria provided the framework for Criterion BIO1 and Criterion BIO2 below. These criteria are used to assess the impacts to biological resources stemming from the Project and provide the basis for determinations of significance:

- Criterion BIO1: 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 CDFW or USFWS (significance criterion e).

- Criterion BIO2: 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 (significance criterion h).

4.1.1 Direct and Indirect Impacts

4.1.1.1 Potential Impact: Have a substantial Effect on any Special-Status Species (Criterion BIO1)

The Project could adversely affect three special-status animal species that could occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species could constitute a significant impact. We recommend that Mitigation Measures BIO1 and BIO2 (below) be included in the conditions of approval to reduce the potential impacts to a less-than-significant level.

Mitigation Measure BIO1. Protect northwestern pond turtle.

1. A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that northwestern pond turtle will not be impacted during Project construction. The pre-construction clearance survey shall be conducted no more than 14 days prior to the start of construction activities. During this survey, the qualified biologist shall search all aquatic habitat for turtles and all potential nesting habitat on the Project site for active turtle nests. If a turtle is found, it will be allowed to the leave the area on its own. If an active turtle nest is found, the qualified biologist shall determine the extent of a construction-free buffer to be established and maintained around the nest for the duration of the nesting cycle. The biologist shall then work with construction personnel to install wildlife exclusion fencing along the buffer. This fencing should be a minimum of 36 inches tall and towed-in 6 inches below ground prior to construction activities. If fencing cannot be toed-in, the bottom of the fence will be weighted down with a continuous line of long, narrow sand bags or similar, to ensure there are no gaps under the fencing where wildlife could enter. One-way exit funnels directed away from construction activities will be installed to allow turtles and other small wildlife to exit the fenced enclosure.

Mitigation Measure BIO2. Protect roosting pallid bat and western mastiff bat.

1. A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that no roosting pallid bats or western mastiff bats will be disturbed during the implementation of the Project. A pre-construction clearance survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential roosting habitat in and immediately adjacent to the impact areas. If an active roost is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the roost. If work cannot proceed without disturbing the

roosting bats, work may need to be halted or redirected to other areas until the roost is no longer in use.

4.1.1.2 Potential Impact: Interfere Substantially with Native Wildlife Movements, Corridors, or Nursery Sites (Criterion BIO2)

The Project could impede the use of nursery sites for native birds protected under the MBTA and CFGC. Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort can be considered take under the MBTA and CFGC. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Construction activities such as excavating, trenching, and grading that disturb a nesting bird on the Project site or immediately adjacent to the construction zone could constitute a significant impact. We recommend that Mitigation Measure BIO3 (below) be included in the conditions of approval to reduce the potential effect to a less-than-significant level.

Mitigation Measure BIO3. Protect nesting birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.
2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during the implementation of the Project. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

4.1.2 Cumulative Impacts

The Project will involve constructing a temporary crossing of the Lower Kaweah River in support of a new KDWCD water management facility. The Project will occur in a 5.5-acre area that currently supports disturbed grassland, riparian, and riverine land covers. The Project site could provide habitat for northwestern pond turtle, pallid bat, and western mastiff bat. Nesting habitat for migratory birds is also present on the Project site. However, implementing Mitigation

Measures BIO1 through BIO3 would reduce any contribution to cumulative impacts on biological resources to a less-than-significant level.

4.1.3 Unavoidable Significant Adverse Impacts

No unavoidable significant adverse effects on biological resources would occur from implementing the Project.

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Appendix A. USFWS list of threatened and endangered species.

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: May 18, 2022
Project Code: 2022-0044491
Project Name: Lower Kaweah Crossing

Subject: List of threatened and endangered species that may occur in your proposed project location 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, 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 U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

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 Code 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:

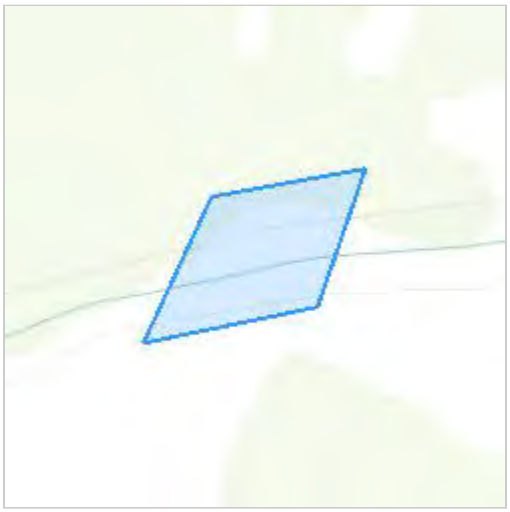
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Project Code: 2022-0044491
Event Code: None
Project Name: Lower Kaweah Crossing
Project Type: Water Supply Facility - New Constr
Project Description: Kaweah Delta Water Conservation District (KDWCD) project to construct a temporary crossing of the Lower Kaweah River about 1.5 miles northwest of Lemon Cove in Tulare County, California. The temporary crossing will be required during the estimated 2-year development phase of Water Management Facility located on the south side of the Lower Kaweah River. Material excavated from the facility will be deposited on a prepared site located on the north side of the Kaweah River. The project will impact the banks of the river and involve installing corrugated metal pipe and riprap consisting of 6–12-inch diameter rock along the upstream and downstream sides of the temporary road.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.38348465,-119.06645368701817,14z



Counties: Tulare County, California

Endangered Species Act Species

There is a total of 12 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.

Mammals

NAME	STATUS
Fisher *Pekania pennanti* Population: SSN DPS There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3651	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard *Gambelia silus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. The location of the critical habitat is not available. 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. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered

Flowering Plants

NAME	STATUS
Greene's Tuctoria *Tuctoria greenei*	Endangered
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1573	
San Joaquin Adobe Sunburst *Pseudobahia peirsonii*	Threatened
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2931	
San Joaquin Orcutt Grass *Orcuttia inaequalis*	Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5506	

Critical habitats

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

IPaC User Contact Information

Agency: Colibri Ecological Services
Name: Ryan Slezak
Address: 9493 N Ft Washington Rd
City: Fresno
State: CA
Zip: 93730
Email rslezak@colibri-ecology.com
Phone: 5592426178

Appendix B. CNDDB occurrence records.

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Kaweah (3611848) OR Shadequarter Mtn. (3611858) OR Woodlake (3611941) OR Auckland (3611951) OR Chickencoop Canyon (3611838) OR Rocky Hill (3611931) OR Exeter (3611932) OR Stokes Mtn. (3611952) OR Ivanhoe (3611942))

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	G1G2 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	505 540	955 S:2	0	0	0	0	0	2	1	1	2	0	0
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	G2G3T3 S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	345 743	1265 S:9	0	6	2	0	0	1	2	7	9	0	0
Anniella pulchra Northern California legless lizard	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	377 1,023	383 S:3	1	0	0	0	0	2	1	2	3	0	0
Antrozous pallidus pallid bat	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	368 368	420 S:1	1	0	0	0	0	0	0	1	1	0	0
Ardea herodias great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	500 500	156 S:1	0	0	0	0	0	1	1	0	1	0	0
Athene cunicularia burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	343 343	2011 S:1	1	0	0	0	0	0	0	1	1	0	0
Atriplex cordulata var. erecticaulis Earlimart orache	G3T1 S1	None None	Rare Plant Rank - 1B.2	335 335	23 S:1	1	0	0	0	0	0	0	1	1	0	0
Atriplex minuscula lesser saltscale	G2 S2	None None	Rare Plant Rank - 1B.1	335 335	52 S:1	0	1	0	0	0	0	0	1	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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.
Atriplex persistens vernal pool smallscale	G2 S2	None None	Rare Plant Rank - 1B.2	345 355	41 S:2	2	0	0	0	0	0	0	2	2	0	0
Batrachoseps regius Kings River slender salamander	G2G3 S2S3	None None	IUCN_VU-Vulnerable USFS_S-Sensitive	2,000 5,500	14 S:2	0	0	0	0	0	2	2	0	2	0	0
Bombus crotchii Crotch bumble bee	G2 S1S2	None None		450 1,000	437 S:5	0	0	0	0	0	5	5	0	5	0	0
Branchinecta lynchi vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	335 950	795 S:19	2	3	0	0	0	14	6	13	19	0	0
Brodiaea insignis Kaweah brodiaea	G1 S1	None Endangered	Rare Plant Rank - 1B.2 USFS_S-Sensitive	560 3,300	27 S:11	2	4	2	0	0	3	10	1	11	0	0
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	GNR SNR	None None		1,100 1,100	11 S:1	0	1	0	0	0	0	1	0	1	0	0
Chrysis tularensis Tulare cuckoo wasp	G1G2 S1S2	None None		450 450	5 S:1	0	0	0	0	0	1	1	0	1	0	0
Delphinium recurvatum recurved larkspur	G2? S2?	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden	340 440	119 S:4	0	0	0	0	1	3	2	2	3	0	1
Desmocerus californicus dimorphus valley elderberry longhorn beetle	G3T2T3 S3	Threatened None		405 960	271 S:2	0	0	1	0	0	1	2	0	2	0	0
Diplacus pictus calico monkeyflower	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	600 600	73 S:1	0	0	0	0	0	1	1	0	1	0	0
Empidonax traillii willow flycatcher	G5 S1S2	None Endangered	IUCN_LC-Least Concern USFS_S-Sensitive	570 570	90 S:1	0	0	0	0	0	1	1	0	1	0	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	70 1,000	1404 S:3	0	0	0	0	0	3	3	0	3	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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.
Eriogonum nudum var. murinum mouse buckwheat	G5T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,280 3,400	11 S:4	0	0	0	0	0	4	4	0	4	0	0
Eryngium spinosepalum spiny-sepaled button-celery	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	335 2,000	108 S:20	3	9	2	0	1	5	11	9	19	1	0
Erythranthe norrisii Kaweah monkeyflower	G2 S2	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,200 2,700	8 S:2	0	0	0	0	0	2	2	0	2	0	0
Eumops perotis californicus western mastiff bat	G4G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern WBWG_H-High Priority	450 940	296 S:5	0	0	0	0	0	5	5	0	5	0	0
Euphorbia hooveri Hoover's spurge	G1 S1	Threatened None	Rare Plant Rank - 1B.2	335 345	29 S:2	0	0	2	0	0	0	0	2	2	0	0
Fritillaria striata striped adobe-lily	G1 S1	None Threatened	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive		23 S:1	0	0	0	0	1	0	1	0	0	0	1
Glyceria grandis American manna grass	G5 S3	None None	Rare Plant Rank - 2B.3		10 S:1	0	0	0	0	0	1	1	0	1	0	0
Great Valley Valley Oak Riparian Forest Great Valley Valley Oak Riparian Forest	G1 S1.1	None None		320 320	33 S:1	0	1	0	0	0	0	1	0	1	0	0
Gymnogyps californianus California condor	G1 S1	Endangered Endangered	CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_CR-Critically Endangered NABCI_RWL-Red Watch List	1,000 1,000	13 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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.
Haliaeetus leucocephalus bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive	912 912	329 S:1	0	1	0	0	0	0	0	1	1	0	0
Helianthus winteri Winter's sunflower	G2? S2?	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	460 2,500	55 S:32	6	20	4	1	0	1	0	32	32	0	0
Lasthenia chrysantha alkali-sink goldfields	G2 S2	None None	Rare Plant Rank - 1B.1	380 380	55 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasthenia glabrata ssp. coulteri Coulter's goldfields	G4T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	350 350	111 S:1	0	0	0	0	0	1	0	1	1	0	0
Lepidurus packardi vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	340 345	329 S:2	0	1	0	0	0	1	1	1	2	0	0
Leptosiphon serrulatus Madera leptosiphon	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	1,000 3,500	27 S:2	0	0	0	0	0	2	2	0	2	0	0
Linderiella occidentalis California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	513 516	508 S:2	0	0	0	0	0	2	0	2	2	0	0
Lithobates pipiens northern leopard frog	G5 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern		19 S:1	0	0	0	0	0	1	1	0	1	0	0
Lytta moesta moestan blister beetle	G2 S2	None None		1,000 1,000	12 S:1	0	0	0	0	0	1	1	0	0	1	0
Lytta morrisoni Morrison's blister beetle	G1G2 S1S2	None None		960 960	10 S:1	0	0	0	0	0	1	1	0	0	1	0
Northern Claypan Vernal Pool Northern Claypan Vernal Pool	G1 S1.1	None None		435 475	21 S:2	0	0	0	0	0	2	2	0	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

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.
Northern Hardpan Vernal Pool	G3	None		345	126	0	0	0	0	0	1	1	0	1	0	0
Northern Hardpan Vernal Pool	S3.1	None		345	S:1											
Orcuttia inaequalis	G1	Threatened	Rare Plant Rank - 1B.1	515	47	0	0	0	0	1	0	1	0	0	0	1
San Joaquin Valley Orcutt grass	S1	Endangered		515	S:1											
Pseudobahia peirsonii	G1	Threatened	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	600	51	0	0	0	1	0	2	3	0	3	0	0
San Joaquin adobe sunburst	S1	Endangered		1,420	S:3											
Rana boylii	G3	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	520	2478	0	0	0	0	10	0	10	0	0	0	10
foothill yellow-legged frog	S3	Endangered		2,211	S:10											
Sagittaria sanfordii	G3	None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	400	143	0	0	1	0	0	0	0	1	1	0	0
Sanford's arrowhead	S3	None		400	S:1											
Spea hammondii	G2G3	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	0	1422	0	26	1	0	0	4	4	27	31	0	0
western spadefoot	S3	None		743	S:31											
Sycamore Alluvial Woodland	G1	None		580	17	0	0	0	0	0	1	1	0	1	0	0
Sycamore Alluvial Woodland	S1.1	None		580	S:1											
Talanites moodyae	G1G2	None		400	6	0	0	0	0	0	4	4	0	4	0	0
Moody's gnaphosid spider	S1S2	None		1,200	S:4											
Taxidea taxus	G5	None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	370	594	0	0	1	0	0	0	1	0	1	0	0
American badger	S3	None		370	S:1											
Tuctoria greenei	G1	Endangered	Rare Plant Rank - 1B.1	450	50	0	0	0	0	1	0	1	0	0	0	1
Greene's tuctoria	S1	Rare		450	S:1											
Valley Sacaton Grassland	G1	None		370	9	0	0	0	0	0	1	1	0	1	0	0
Valley Sacaton Grassland	S1.1	None		370	S:1											
Vulpes macrotis mutica	G4T2	Endangered		345	1020	0	0	0	0	0	7	7	0	7	0	0
San Joaquin kit fox	S2	Threatened		720	S:7											

Appendix C. CNPS plant list.

Search Results

24 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3611848:3611941:3611858:3611951:3611838:3611931:3611932:3611952:3611942**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
Atriplex cordulata var. *erecticaulis*	Earlimart orache	Chenopodiaceae	annual herb	Aug-Sep(Nov)	None	None	G3T1	S1	1B.2
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	None	None	G2	S2	1B.1
Atriplex persistens	vernal pool smallscale	Chenopodiaceae	annual herb	Jun-Oct	None	None	G2	S2	1B.2
Brodiaea insignis	Kaweah brodiaea	Themidaceae	perennial bulbiferous herb	Apr-Jun	None	CE	G1	S1	1B.2
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	None	None	G2?	S2?	1B.2
Diplacus pictus	calico monkeyflower	Phrymaceae	annual herb	Mar-May	None	None	G2	S2	1B.2
Eriogonum nudum var. *murinum*	mouse buckwheat	Polygonaceae	perennial herb	Jun-Nov	None	None	G5T2	S2	1B.2
Eryngium spinosepalum	spiny-sepaled button-celery	Apiaceae	annual/perennial herb	Apr-Jun	None	None	G2	S2	1B.2
Erythranthe acutidens	Kings River monkeyflower	Phrymaceae	annual herb	Apr-Jul	None	None	G2G3	S2S3	3
Erythranthe norrisii	Kaweah monkeyflower	Phrymaceae	annual herb	Mar-May	None	None	G2	S2	1B.3
Erythranthe sierrae	Sierra Nevada monkeyflower	Phrymaceae	annual herb	Mar-Jul	None	None	G2	S2	4.2
Euphorbia hooveri	Hoover's spurge	Euphorbiaceae	annual herb	Jul-Sep(Oct)	FT	None	G1	S1	1B.2
Fritillaria striata	striped adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	CT	G1	S1	1B.1
Glyceria grandis	American manna grass	Poaceae	perennial rhizomatous herb	Jun-Aug	None	None	G5	S3	2B.3
Goodmania luteola	golden goodmania	Polygonaceae	annual herb	Apr-Aug	None	None	G3	S3	4.2
Helianthus winteri	Winter's sunflower	Asteraceae	perennial shrub	Jan-Dec	None	None	G2?	S2?	1B.2
Lasthenia chrysantha	alkali-sink goldfields	Asteraceae	annual herb	Feb-Apr	None	None	G2	S2	1B.1
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1
Leptosiphon serrulatus	Madera leptosiphon	Polemoniaceae	annual herb	Apr-May	None	None	G3	S3	1B.2
Orcuttia inaequalis	San Joaquin Valley	Poaceae	annual herb	Apr-Sep	FT	CE	G1	S1	1B.1

	Orcutt grass								
Pseudobahia peirsonii	San Joaquin adobe sunburst	Asteraceae	annual herb	Feb-Apr	FT	CE	G1	S1	1B.1
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2
Streptanthus farnsworthianus	Farnsworth's jewelflower	Brassicaceae	annual herb	May-Jun	None	None	G4	S4	4.3
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	FE	CR	G1	S1	1B.1

Showing 1 to 24 of 24 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [accessed 18 May 2022].

Aquatic Resource Delineation Report

June 2022

LOWER KAWEAH RIVER TEMPORARY CROSSING PROJECT
TULARE COUNTY, CALIFORNIA

PREPARED FOR:
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Executive Summary

To help meet permitting requirements, we performed a preliminary delineation of aquatic resources for the proposed Lower Kaweah River Temporary Crossing Project approximately 2 miles southeast of Woodlake in Tulare County, California. The evaluation involved a desktop review of soils, hydrology, topography, and stream geomorphology and a field verification of hydrology, stream geomorphology, sediment texture, and vegetation at the Project site. We delineated aquatic resources in accordance with *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008).

One aquatic resource, the Lower Kaweah River, was determined to be jurisdictional under the California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Board (RWQCB), and likely the United States Army Corps of Engineers (USACE). Jurisdictional boundaries were mapped to the ordinary high water mark (OHWM) requirements of the United States Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB) and the "top of bank" requirements of the CDFW.

The survey area encompassing the Project site was 8.16 acres. Top of bank jurisdictional limits of the Lower Kaweah River in the survey area comprised 4.01 acres. Ordinary high water mark (OHWM) jurisdictional limits of the Lower Kaweah River in the survey area comprised 1.89 acres. The Lower Kaweah River is classified as riverine, lower perennial, unconsolidated bottom, and perennially flooded (Cowardin et al. 1979, USFWS 2022). The Lower Kaweah River has a trapezoidal channel modified for flood control and water conveyance. Emergent and riparian vegetation is present in a well-defined channel with obvious changes in slope, substrate, and vegetation type. The Lower Kaweah River maintains flow throughout most of the year and is a tributary to Mill Creek, Cross Creek, and the Tule River. The Lower Kaweah River is a relatively permanent water under Section 404 of the Clean Water Act. The proposed project will temporarily impact 0.35 acres of the Lower Kaweah River below the OHWM and 0.61 acres of the Lower Kaweah River below the top of bank.

Abbreviations

Abbreviation	Definition
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
FAC	Facultative; plant that occurs in wetlands 33–66% of the time
FACU	Facultative upland; plant that occurs in wetlands 1–33% of the time
FACW	Facultative wetland; plant that occurs in wetlands 67–99% of the time
KDWCD	Kaweah Delta Water Conservation District
NRCS	Natural Resources Conservation Service
OBL	Obligate; plant that occurs in wetlands > 99% of the time
OHWM	Ordinary High Water Mark
RWQCB	Regional Water Quality Control Board
SWRCB	State Water Resources Control Board
UPL	Upland; plant that occurs in uplands > 99% of time
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
WIS	Wetland Indicator Status
WoS	Waters of the State

Chapter 1. Introduction

Kaweah Delta Water Conservation District (KDWCD) proposes to construct a temporary stream crossing on the Lower Kaweah River approximately 2 miles southeast of Woodlake in Tulare County, California (Project). The temporary stream crossing will consist of ten 6-foot-diameter corrugated metal pipes placed parallel to each other within the stream channel. The pipes will be covered with at least 4 feet of compacted native fill. Approach ramps on both sides of the channel will be cut into the stream banks. The upstream and downstream faces of the temporary crossing will be armored with riprap to prevent soil erosion. The temporary crossing will support the multi-year construction of a KDWCD water management facility on the south side of the Lower Kaweah River.

The 8.16-acre survey area encompassed the work area for the proposed temporary stream crossing of the Lower Kaweah River and a surrounding 50-foot buffer. The purpose of this report is to (1) identify and describe aquatic resources in the survey area, (2) document aquatic resource boundary determinations for review by the regulatory authorities, and (3) provide other background information to help meet permitting requirements.

The applicant for this proposed project is:

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This evaluation involved (1) a desktop review of aerial imagery (Google 2022), United States Geological Survey (USGS) topographic maps, Natural Resources Conservation Service (NRCS) soil survey maps (NRCS 2022a), and other relevant information and (2) a field verification of the survey area on 19 May 2022.

Chapter 2. Regulatory Setting

United States Army Corps of Engineers Jurisdiction

Areas meeting the regulatory definition of "waters of the United States" (jurisdictional waters) are subject to the jurisdiction of the United States Army Corps of Engineers (USACE) under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as waters of the United States, tributaries of waters otherwise defined as waters of the United States, the territorial seas, and wetlands adjacent to waters of the United States (33 CFR part 328.3). Under 2006 Supreme Court ruling *Rapanos v. United States*, waters of the United States include non-navigable tributaries of traditional navigable waters that are relatively permanent. Wetlands on non-agricultural lands are identified using the Corps of Engineers Wetlands Delineation Manual and related Regional Supplement (USACE 1987 and 2008). Construction activities, including direct removal, filling, hydrologic disruption, or other means in jurisdictional waters are regulated by the USACE. The placement of dredged or fill material into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act (CWA). The State Water Resources Control Board (SWRCB) is the state agency, together with the Regional Water Quality Control Boards (RWQCB), charged with implementing water quality certification in California.

State Water Resources Control Board / Regional Water Quality Control Board Jurisdiction

Section 401 of the Clean Water Act

As stated in Section 401 of the CWA, "any applicant for a Federal permit for activities that involve a discharge to Waters of the United States, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal CWA."

Porter-Cologne Act and Waters of the State

The SWRCB, acting through the RWQCB, regulates "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state (Water Code

13260(a)). "Waters of the State" (WoS) are defined as "any surface water or groundwater, including saline waters, within the boundary of the state" (Water Code 13050(e)). Additionally, pursuant to the definition of WoS in the Porter-Cologne Act, the state maintains jurisdiction of isolated waters. In other words, the RWQCB regulates all activity, including dredging and filling, in WoS that are not regulated by the USACE, including vernal pools and other waters showing lack of connectivity to a Traditional Navigable Water.

California Department of Fish and Wildlife Jurisdiction

Under the California Fish and Game Code Sections 1600–1603, the CDFW regulates any person, state or local government agency, or public utility that proposes to "substantially divert[s] or obstruct[s] the natural flow or substantially change[s] the bed, channel, or bank of any river, stream, or lake designated by the department, or use[s] any material from the streambeds". This jurisdiction includes ephemeral, intermittent, and perennial streams, dry washes, and lakes characterized by a defined bed and bank and observed relationship to fish or wildlife resources. This jurisdiction extends to adjacent habitats that function as part of the riparian system, regardless of the riparian area's federal status. When riparian vegetation is present, CDFW jurisdiction reaches to the outer limits of the riparian vegetation dripline. Further, CDFW asserts jurisdiction over vernal pools only when California State threatened and/or endangered species are present.

Chapter 3. Location

The Project site is approximately 200 feet south of Avenue 328 and 0.8 miles east of Road 220 in Tulare County, California (Figures 1 and 2). From Woodlake, it can be accessed by driving south on California State Route 245 for 1.5 miles and turning left (east) onto Avenue 332. After driving for 1.8 miles, turn right (south) onto Avenue 328. Travel 0.3 miles south along Avenue 328 to the Project site. The Project site is in Sections 5 and 8, Township 18 South, Range 27 East of the Woodlake 7.5-minute topographic quadrangle at latitude 36.38323°N, longitude -119.06670°W (Datum WGS84).

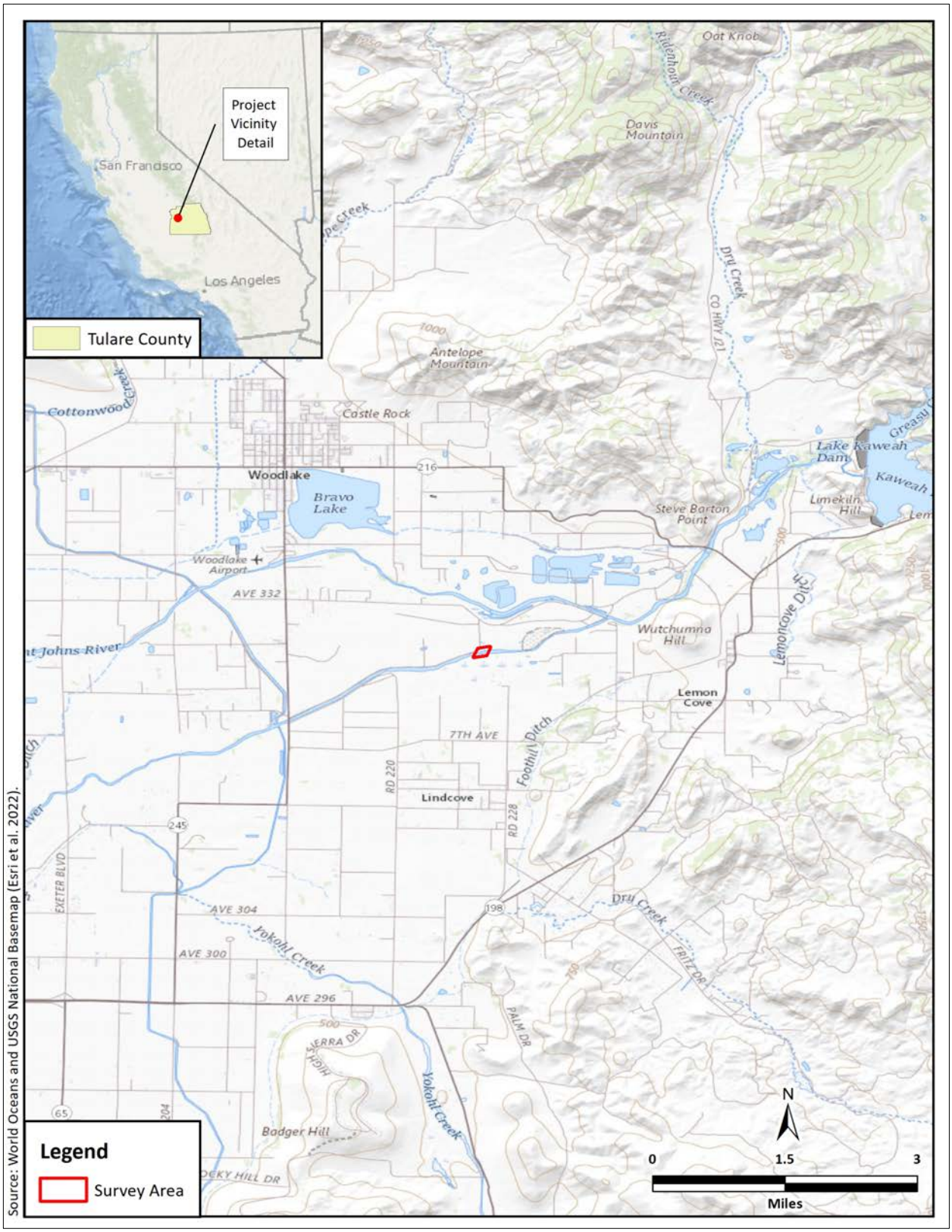

Figure 1. Project site vicinity map.

Figure 2. Project site map.

Chapter 4. Methods

We identified the lateral limits of non-wetland waters in the survey area using hydrology, stream geomorphology, sediment texture, and vegetation response to the dominant stream discharge in accordance with *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008). We also mapped the "top of bank" as the jurisdictional limits of the CDFW. Those boundaries were delineated in the field using an iPad (©2019 Apple, Inc.) with Bluetooth-enabled external Global Positioning System (GPS) device with sub-meter accuracy (EOS Arrow 100®).

Prior to conducting the field verification, we reviewed the following sources of information:

- Woodlake 7.5-minute USGS topographic quadrangle map.
- Aerial imagery from Google Earth (Google 2022).
- Soil survey maps and unit descriptions (NRCS 2022a).
- Hydric soil information (NRCS 2022b).
- United States Fish and Wildlife Service National Wetlands Inventory (USFWS 2022).
- The National Wetland Plant List (USACE 2020).

The field verification was performed on 19 May 2022 by Colibri Senior Scientist Ryan Slezak and involved a review of hydrology, stream geomorphology, sediment texture, and vegetation throughout the survey area. The *Updated Datasheet for the identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western Unites States* (Curtis and Lichvar 2010) was used to record data along a representative cross section spanning all hydrogeomorphic floodplain units.

Plants observed in the survey area were identified to species using The Jepson Manual (Baldwin et al. 2012) and Calflora (Calflora 2022). The National Wetland Plant List (USACE 2020) was used to determine the status of observed plants as wetland indicator species. Photographs were taken to document the vegetation, slope, and other characteristics of the hydrogeomorphic floodplain units throughout the survey area, and photo points were established for future documentation of the project.

Chapter 5. Existing Conditions

5.1 Landscape Setting

California's Mediterranean climate is distinguished by cool, wet winters under prevailing westerly winds and hot, dry summers. Typically, 75% of the yearly precipitation accumulates December–March. California Department of Water Resources data indicate precipitation was below average for the 2021–2022 water year in the San Joaquin Valley (California Department of Water Resources 2022). At the time of survey, precipitation was 72% of average (9.90 inches) for the 2021–2022 water year at the National Weather Service Station in Lemon Cove (Station ID: 044890), 1.5 miles southeast of the Project site. Elevation at the Project site is 439 feet above mean sea level.

The survey area encompassed 8.16 acres surrounding the proposed work and staging areas (Figure 2). The survey area consisted of the Lower Kaweah River channel, riparian corridor, and adjacent uplands and supported disturbed grassland, riverine, and riparian land covers (Figure 2). The survey area was surrounded by orchard to the south, disturbed grassland to the northeast, and active construction to the northwest. Dirt access roads were atop the north and south banks of the Lower Kaweah River. The northeast section of the survey area contained a defunct detention basin.

Flowing water was present in the low-flow channel during the 19 May 2022 survey. The water was 0–1 foot deep and well below the OHWM. The low-flow channel was sparsely vegetated with emergent vegetation. Dense riparian forbs and shrubs lined the stream banks at or below the OHWM. Disturbed grassland was present on the banks above the OHWM. The OHWM width was 110–150 feet. The top of bank width was 220–300 feet. The length of the channel within the survey area was approximately 670 feet.

5.2 Aquatic Resources

Aquatic resources in the survey area consisted of the Lower Kaweah River, which is classified as riverine, lower perennial, unconsolidated bottom, and perennially flooded (Cowardin et al. 1979, USFWS 2022, Table 1, Appendix A). The Lower Kaweah River is a natural waterway that has been channelized for water conveyance and flood control. The bed and banks have been modified to a trapezoidal shape. A distinct low-flow channel, active floodplain, and low terrace are present on both banks. The low-flow channel supported a substrate of cobble and boulders. Soil texture along the banks was coarse silt below the OHWM and medium sand above the OHWM.

Table 1. Aquatic resources in the survey area.

Aquatic Resource Name	Cowardin Type	Acreage (USACE)	Linear Feet	Location
Kaweah River	Riverine, lower perennial, unconsolidated bottom, perennially flooded	1.89	670	36.38323, -119.06670

The northeast section of the survey area contained a defunct detention basin. The basin is classified as a palustrine, forested, seasonally flooded wetland by the USFWS National Wetlands Inventory (USFWS 2022). The basin showed no signs of hydrology or recent use upon desktop review or during the 19 May 2022 survey (Google 2022). Consequently, the basin is excluded from further discussion in this report.

The Lower Kaweah River is managed by the KDWCD for flood control, irrigation, hydroelectricity, water storage, and other services to a 340,000-acre district in the south-central San Joaquin Valley. Historically, the Lower Kaweah River flowed into a vast area of seasonally flooded wetlands surrounding Tulare Lake, almost all of which have been diked and drained for agriculture. Under current conditions, flows upstream of the Project site are regulated by Terminus Dam and McKay Point Control Structure. Terminus Dam, approximately 4.6 miles upstream of the Project site, forms Lake Kaweah and regulates downstream flows for flood control, irrigation, and hydro-electricity. Flows below Terminus Dam typically peak in June and July and are lowest October–December (CDEC 2022). McKay Point Control Structure, approximately 1.3 miles upstream of the Project site, divides river flows between the St. John's River and the Lower Kaweah River to satisfy downstream water rights. Downstream of the Project site, the Lower Kaweah River empties into several distributaries including Outside Creek, Deep Creek, Mill Creek, and Packwood Creek. Mill Creek, the largest distributary, flows west for 25.1 miles to Cross Creek, which flows into the old channel of the Tule River. Most of the water in the Lower Kaweah River distributaries is diverted for irrigation and groundwater recharge. During wet years, Lower Kaweah River distributaries are also used for flood control.

The predominant soils in the area are Grangeville silt loam and Tujunga sand (NRCS 2022a, Appendix B). Grangeville silt loam is a well-drained soil with a moderately high to high capacity

to transmit water. Grangeville silt loam occurs at the foot slope of alluvial fans. Tujunga sand is a somewhat excessively drained soil with a high to very high capacity to transmit water. Tujunga sand also occurs at the foot slope of alluvial fans. Grangeville silt loam is listed as a hydric soil in the National List of Hydric Soils (NRCS 2022b).

The OHWM of the stream channel was identified by a defined change of vegetation species, change in sediment texture, and a break in bank slope. The low-flow channel was sparsely vegetated with emergent vegetation. Dominant vegetation within the low-flow channel included Baltic rush (*Juncus balticus*, FACW), iris-leaved rush (*Juncus xiphioides*, OBL), floating primrose willow (*Ludwigia peploides* ssp. *peploides*, OBL), narrow leaf cattail (*Typha angustifolia*, OBL), seep monkeyflower (*Erythranthe guttata*, OBL), water beard grass (*Polypogon viridis*, FACW), and water smartweed (*Persicaria amphibia*, OBL, Appendices C and D). The stream banks at and below the OHWM were densely vegetated with riparian forbs and shrubs. Dominant vegetation at and below the OHWM included arroyo willow (*Salix lasiolepis*, FACW), California mugwort (*Artemisia douglasiana*, FAC), and fringed willowherb (*Epilobium ciliatum*, FACW). Above the OHWM, the stream banks were dominated by nonnative grasses such as red brome (*Bromus rubens*, UPL) and ripgut brome (*Bromus diandrus*, UPL).

Chapter 6. Conclusions

The Lower Kaweah River flows into Mill Creek, which flows into Cross Creek, and eventually into the old channel of the Tule River, which could be considered a traditional navigable water under Section 404 of the Clean Water Act. Based on desktop review and field observations, the Lower Kaweah River at the Project site has flowing water throughout most of the year (Google 2022). The Lower Kaweah River meets the criteria of a relatively permanent water under Section 404 of the Clean Water Act. Thus, the Lower Kaweah River is likely regulated by the USACE. The Lower Kaweah River contains surface water and has a defined bed and bank. Therefore, it is regulated by the RWQCB and the CDFW.

The proposed Project will temporarily impact 0.35 acres of the Lower Kaweah River below the OHWM and 0.61 acres of the Lower Kaweah River below the top of bank (Table 2).

Table 2. Potential jurisdictional areas in the survey area. All values are in acres.

Potential Jurisdictional Areas in the Survey Area	CDFW	USACE	RWQCB
Kaweah River	4.01	1.89	1.89
Impacts to Jurisdictional Areas			
Temporary	0.61	0.35	0.35
Permanent	0.00	0.00	0.00
Total	**0.61**	**0.35**	**0.35**

Chapter 7. Literature Cited

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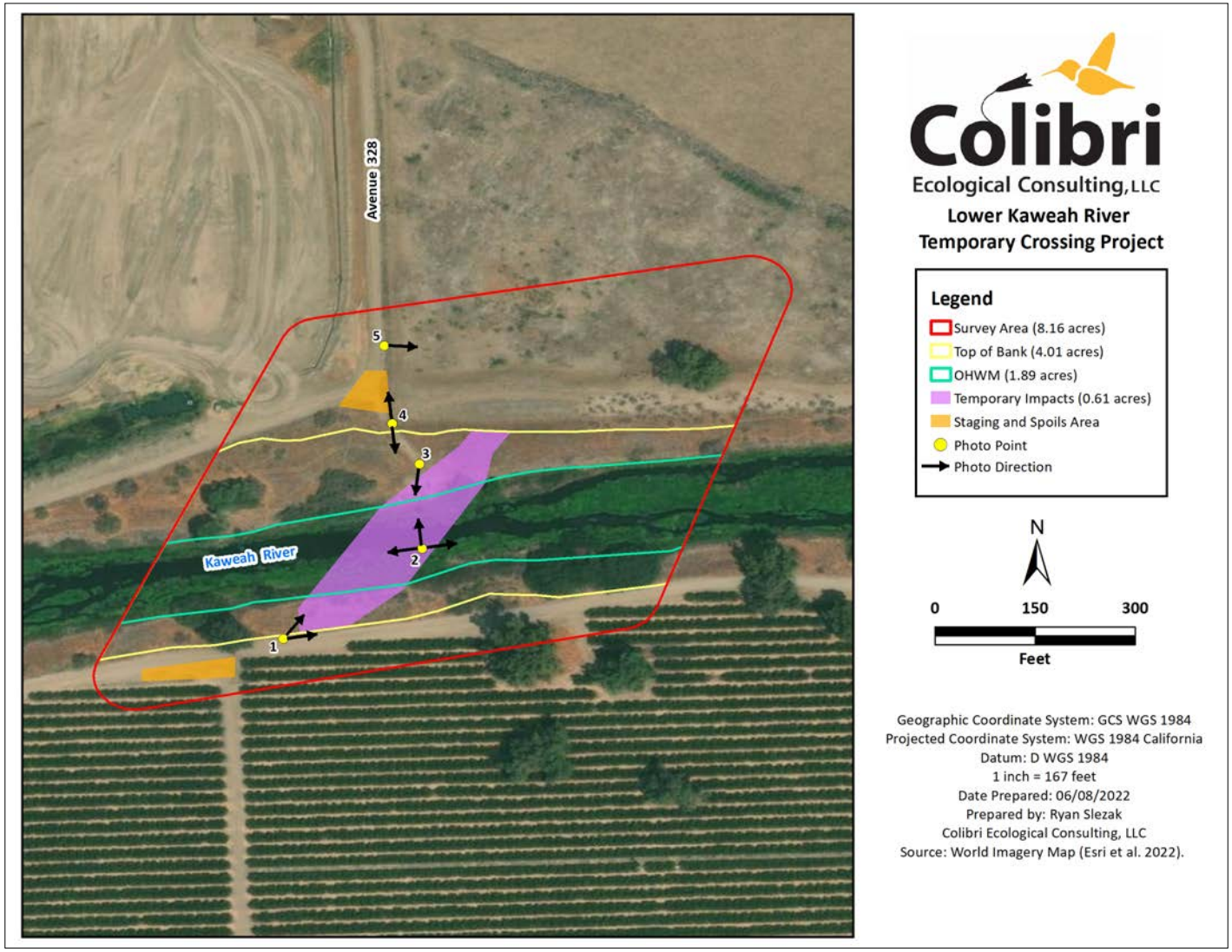
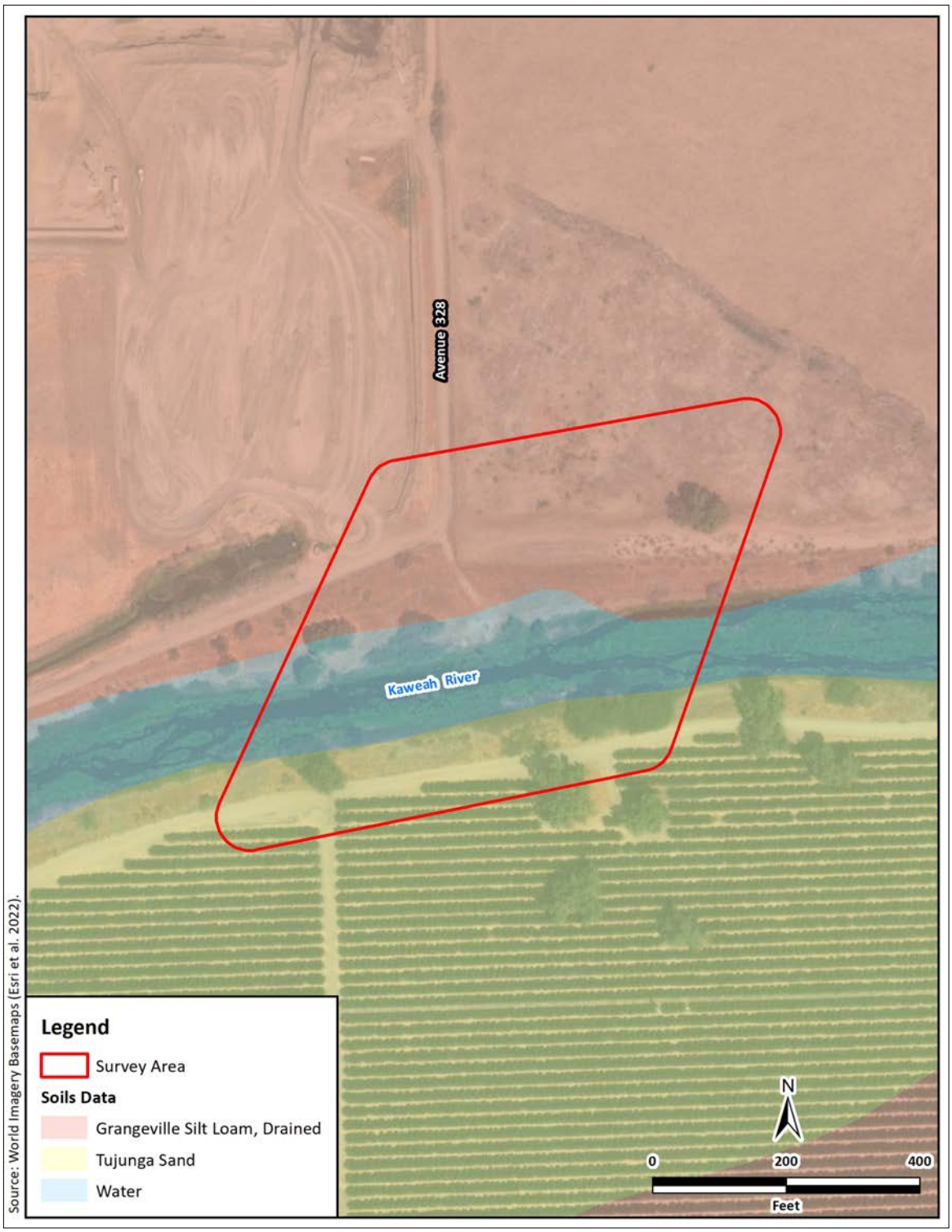
Appendix A. Aquatic resource delineation map.



Appendix B. Soil survey map.



Appendix C. Photographs.

Photo 1. Looking northeast from Photo Point 1 across the temporary crossing Project site.

Photo 2. Looking east from Photo Point 1 at the access road and southern river bank of the temporary crossing Project site.

Photo 3. Looking east (upstream) from Photo Point 2 on the temporary crossing Project site.

Photo 4. Looking west (downstream) from Photo Point 2 on the temporary crossing Project site.

Photo 5. Looking north from Photo Point 2 across the temporary crossing Project site.

Photo 6. Looking south from Photo Point 3 across the temporary crossing Project site.

Photo 7. Looking north from Photo Point 4 at northern staging area and Avenue 328.

Photo 8. Looking south from Photo Point 4 across the temporary crossing Project site.

Photo 9. Looking east from Photo Point 5 at the defunct detention basin in the northeastern portion of the Project site.

Appendix D. Plant list.

Plant species observed in the survey area and their wetland indicator status.

Genus	Species	Common Name	WIS*
Amaranthus	*retroflexus*	Rough pigweed	FACU
Amsinckia	*intermedia*	Common fiddleneck	UPL
Artemisia	*douglasiana*	California mugwort	FAC
Artemisia	*dracunculus*	Wild tarragon	UPL
Artemisia	*ludoviciana*	Silver wormwood	FACU
Avena	*fatua*	Wild oat	UPL
Baccharis	*salicifolia*	Mulefat	FAC
Brassica	*nigra*	Black mustard	UPL
Bromus	*diandrus*	Ripgut brome	UPL
Bromus	*hordeaceus*	Soft brome	FACU
Bromus	*rubens*	Red brome	UPL
Carduus	*pycnocephalus*	Italian thistle	UPL
Centaurea	*solstitialis*	Yellow star thistle	UPL
Conium	*maculatum*	Poison hemlock	FACW
Cucurbita	*palmata*	Coyote melon	UPL
Cyperus	*eragrostis*	Tall flatsedge	FACW
Datura	*wrightii*	Jimsonweed	UPL
Epilobium	*ciliatum*	Fringed willowherb	FACW
Equisetum	*arvense*	Field horsetail	FAC
Erigeron	*canadensis*	Canada horseweed	FACU
Erodium	*botrys*	Longbeak stork's bill	FACU
Erythranthe	*guttata*	Seep monkeyflower	OBL
Fraxinus	*latifolia*	Oregon ash	FACW
Helianthus	*annuus*	Common sunflower	FACU
Hydrocotyle	*verticillata*	Whorled marsh pennywort	OBL
Juncus	*balticus*	Baltic rush	FACW

Genus	Species	Common Name	WIS*
Juncus	*bufonius*	Common toad rush	FACW
Juncus	*xiphioides*	Iris-leaved rush	OBL
Lactuca	*serriola*	Prickly lettuce	FACU
Ludwigia	*palustris*	Marsh purslane	OBL
Ludwigia	*peploides* ssp. *peploides*	Floating primrose willow	OBL
Lupinus	*albifrons*	Silver bush lupine	UPL
Malva	*parviflora*	Cheeseweed	UPL
Mentha	*pulegium*	Pennyroyal	OBL
Myriophyllum	*aquaticum*	Parrot's feather	OBL
Nasturtium	*officinale*	Watercress	OBL
Nicotiana	*glauca*	Tree tobacco	FAC
Persicaria	*amphibia*	Water smartweed	OBL
Phyla	*nodiflora*	Turkey tangle frogfruit	FACW
Platanus	*racemosa*	Western sycamore	FAC
Polypogon	*monspeliensis*	Annual rabbitsfoot grass	FACW
Polypogon	*viridis*	Water beard grass	FACW
Populus	*fremontii*	Fremont cottonwood	FAC
Quercus	*lobata*	Valley oak	FACU
Rorripa	*curvisiliqua*	Curvepod yellowcress	OBL
Rubus	*armeniacus*	Himalayan blackberry	FAC
Rubus	*ursinus*	California blackberry	FAC
Rumex	*crispus*	Curly dock	FAC
Salix	*exigua*	Narrowleaf willow	FACW
Salix	*lasiolepis*	Arroyo willow	FACW
Sambucus	*nigra* ssp. *caerulea*	Blue elderberry	FACU
Schoenoplectus	*acutus*	Hardstem bulrush	OBL
Silybum	*marianum*	Milk thistle	UPL
Stachys	*albens*	Whitestem hedgenettle	OBL

Genus	Species	Common Name	WIS*
Stephanomeria	*pauciflora*	Wire lettuce	UPL
Tamarix	*ramosissima*	Tamarisk	FAC
Typha	*angustifolia*	Narrow leaf cattail	OBL
Urtica	*dioica*	Stinging nettle	FAC
Verbascum	*virgatum*	Wand mullein	UPL
Veronica	*anagallis-aquatica*	Water speedwell	OBL
Xanthium	*strumarium*	Rough cockleburr	FAC
Zeltnera	*venusta*	Charming centaury	FAC

*WIS = Wetland Indicator Status (Environmental Laboratory 1987): OBL= occurs in aquatic resources > 99% of time; FACW= occurs in aquatic resources 67–99% of time; FAC= occurs in aquatic resources 34–66% of time; FACU= occurs in aquatic resources 1–33% of time; UPL= occurs in uplands > 99% of time.

Appendix E. OHWM data sheets.

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Lower Kaweah River Temporary Crossing
Project Number: —
Stream: Kaweah River
Investigator(s): R. Slezak
Date: 5/19/22
Time:
Town:
State:
Photo begin file#:
Photo end file#:

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: Lower Kaweah River 200ft. south of Ave 328; 0.8mi east of Road 220

Projection: Lambert Conic **Datum:** WGS 84
Coordinates: 36.38323, -119.06670

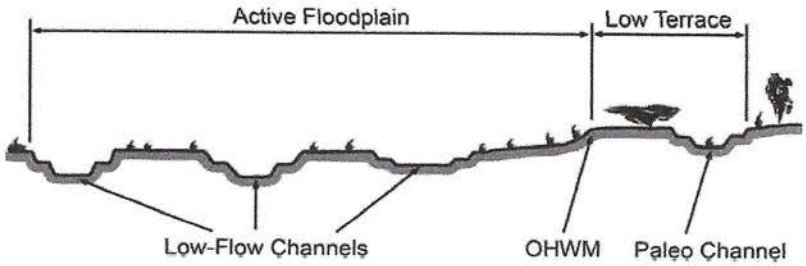
Potential anthropogenic influences on the channel system:
Agricultural runoff, riparian forest removal, conversion of adjacent lands to agriculture
Dewatering & flow manipulation from upstream dams.

Brief site description: River is channelized w/ a distinct low flow channel; water present in low flow channel, sparse emergent veg present. Stream banks @ & below OHWM lined w/ dense riparian veg. Disturbed grassland above OHWM. One bench/terrace present.

Checklist of resources (if available):

- ☒ Aerial photography
  Dates:
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

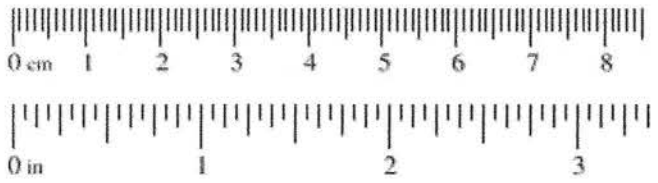


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

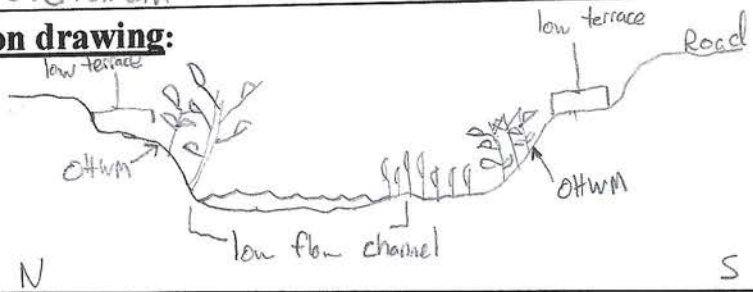
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
2.56	64	Cobble	Gravel
0.157	4	Pebble	
0.079	2.00	Granule	
0.039	1.00	Very coarse sand	
0.020	0.50	Coarse sand	
1/2 0.0098	0.25	Medium sand	Sand
1/4 0.005	0.125	Fine sand	
1/8 0.0025	0.0625	Very fine sand	
1/16 0.0012	0.031	Coarse silt	
1/32 0.00061	0.0156	Medium silt	Silt
1/64 0.00031	0.0078	Fine silt	
1/128 0.00015	0.0039	Very fine silt	
		Clay	Mud



Project ID: Lower Kaweah **Cross section ID:** 1 **Date:** 5/19/22 **Time:** 1400

Cross section drawing:



OHWM

GPS point: 36.38303, -119.06669

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☐ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

Abrubt break in slope @ OHWM. Vegetation changes from dense, green, forbs & shrubs at & below OHWM to sparse, upland forbs & nonnative grasses (brown) above OHWM

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: 36.38323, -119.06670

Characteristics of the floodplain unit:

Average sediment texture: Boulders to cobble

Total veg cover: 40 % Tree: ____% Shrub: ____% Herb: 40 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☒ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☒ Soil development
- ☒ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments: Clear change in substrate from boulders/cobble to sand/silt above low flow channel. Approximately 60% of low flow channel contains water.

Project ID: Lower Kaweah **Cross section ID:** 1 **Date:** 5/19/22 **Time:** 1430

Floodplain unit: ☐ Low-Flow Channel ☒ Active Floodplain ☐ Low Terrace

GPS point: 36.38296, -119.06676

Characteristics of the floodplain unit:

Average sediment texture: Coarse silt

Total veg cover: 100 % Tree: ____ % Shrub: 30 % Herb: 70 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☒ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☒ Drift and/or debris
- ☒ Presence of bed and bank
- ☒ Benches
- ☐ Soil development
- ☐ Surface relief
- ☒ Other: Riparian Vegetation / Change in Vegetation
- ☐ Other: ____
- ☐ Other: ____

Comments:

Dense shrubs (Salix spp.) on north bank, dense forbs covering south bank

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☒ Low Terrace

GPS point: 36.38289, -119.06671

Characteristics of the floodplain unit:

Average sediment texture: Medium sand

Total veg cover: 100 % Tree: ____ % Shrub: ____ % Herb: 100 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☒ Benches
- ☐ Soil development
- ☒ Surface relief
- ☐ Other: ____
- ☐ Other: ____
- ☐ Other: ____

Comments:

Obvious bench between OHWM & TOB. Sparse cobble present in sandy soil

Appendix F. Aquatic resource Excel sheet.

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
Kaweah River	California	R2UB	RIVERINE	Area	1.89	ACRE	RPW	36.38323	-119.70667	

Appendix C

CHRIS Results

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

To: Emily Bowen
Crawford Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

Record Search 22-212

Date: June 1, 2022

Re: Lower Kaweah River Temporary Crossing Project

County: Tulare

Map(s): Woodlake 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there have been no previous cultural resource studies conducted within the project area. There have been two cultural resource studies conducted within the one-half mile radius: TU-00519 and TU-00559.

Record Search 22-212

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there are no recorded resources within the project area. There is one recorded resource within a one-half mile radius, P-54-002403, an historic era levee.

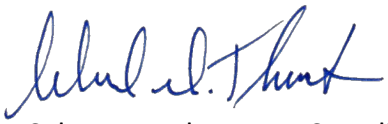
There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of construction of a temporary stream crossing over the Lower Kaweah River. Further, we understand the project area is currently vacant and undeveloped. Waterways and their surrounding regions are considered extremely sensitive for cultural resources, as indigenous people utilized these areas as permanent villages, temporary camps, and task specific sites. Because a cultural resources study has not been conducted on this project area, it is unknown if any cultural resources are present. Therefore, prior to any ground disturbance activities, we recommend a qualified, professional consultant conduct a field survey to determine if cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:



Celeste M. Thomson, Coordinator **Date**: June 1, 2022

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.