DRAFT
INITIAL STUDY
MITIGATED NEGATIVE DECLARATION

for the

Bobcat Flat East (Phase III)
Salmon Habitat Restoration
Tuolumne River Mile 43.5± to 44.5±
Stanislaus County, CA

April 2019

Prepared for the:

Tuolumne River Conservancy, Inc.
1163 E. March Lane, Suite D-708
Stockton, CA 95210

and

Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

By:

Augustine Planning Associates, Inc.
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Abbreviations and Acronyms

Abbreviations and Acronyms	
AB	Assembly Bill
amsl	above mean sea level
APN	Assessor's Parcel Number
BSA	Biological Study Area
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDMG	California Division of Mines and Geology (now California Geological Survey)
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game (Wildlife) Code
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	Stanislaus County
Corps	U.S. Army Corps of Engineers
CRHR	California Register of Historic Resources
CRLF	California Red-Legged Frog
CTS	California tiger salamander
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Federal Clean Water Act
DPS	Distinct Population Segment
DTSC	California Department of Toxic Substance Control
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRM	Flood Insurance Rate Maps
FYLF	Foothill Yellow-legged frog
GGS	Giant garter snake
GHG	Greenhouse Gas
HCP	Habitat Conservation Plan

Abbreviations and Acronyms	
HSC	California Health and Safety Code
MBTA	Migratory Bird Treaty Act
MM	Mitigation Measure
$MTCO_2e$	Metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NOA	Naturally Occurring Asbestos
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PRC	Public Resources Code
Project	Bobcat Flat East (Phase III)
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SCC	Species of Special Concern
SJKF	San Joaquin kit fox
SJVAPCD	San Joaquin Valley Air Pollution Control District
SOIS	Secretary of the Interior Standards
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USFWS	United State Fish and Wildlife Service
USGS	United State Geological Survey
VELB	Valley elderberry longhorn beetle
WPT	Western pond turtle

INITIAL STUDY

DATE: April 3, 2019

OWNERS: Friends of the Tuolumne (Tuolumne River Conservancy, Inc.)
Allison and Dave Boucher
1163 E. March Lane, Suite D-708
Stockton, CA 95210

APPLICANT: Same

LEAD AGENCY: Central Valley Regional Water Quality Control Board
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LOCATION: Along and adjacent to the Tuolumne River in unincorporated eastern Stanislaus County, California, 5.0± miles west of La Grange and 11.4± miles east of Waterford. The project site is located in a portion of Section 33 (with a small portion in the eastern half of Section 32), Township 3 South, Range 13 East, Mount Diablo Base and Meridian (MDB&M) in the USGS Cooperstown 7.5' Quadrangle. The project encompasses approximately 190 acres and 0.9± river mile. Site access is proposed using an existing ranch road. See **Figures 1-3**.

ASSESSOR PARCEL NUMBERS: 008-021-011 and 008-021-026 (190± acres). Access through APNs 008-021-020, -21 and -22.

GENERAL PLAN/ ZONING: General Plan Land Use: Agricultural (AG). Zoning: General Agricultural, 40 acres minimum. Both parcels are under a Williamson Act Land Conservation Contract. Agricultural Preserve Numbers 1972-0903 and 2002-4454.

1.0 PROJECT AND SETTING

1.1 PROJECT DESCRIPTION, PURPOSE AND NEED

Description

The Bobcat Flat East (Phase III) Project (hereinafter, "Project") is proposed to restore, increase, and enhance the quantity and quality of salmonid [Central Valley fall run Chinook salmon (*Oncorhynchus tshawytscha*) and Central Valley steelhead (*Oncorhynchus mykiss*)] spawning and rearing habitat and improve habitat for waterfowl and other aquatic and terrestrial species between River Miles 43.5± to 44.5± within and adjacent to the Tuolumne River by:

- Reestablishing natural floodplain processes through channel contouring and connections;

- Replenishing spawning gravel through augmentation; and
- Bank re-vegetation and riparian habitat preservation activities promoting both wetland and upland native plant communities.

The project is more specifically detailed in **Figures 4-5**. The purpose of this study is to address specific environmental impacts that may result from implementing the proposed habitat restoration project.

Purpose and Need

The Project site has been severely damaged, and the fish and wildlife habitat left significantly altered for many years. This reach of the Tuolumne River was altered by gold dredging activities done to excavate the original river channel and flood plain up to 25 feet deep during the first half of the last century. This reach of the river was further altered during the 1960s by harvesting gravels during construction of upstream dams and by upstream dam construction (especially the New Don Pedro Dam in 1971) that has changed the flow regime of the river and reduced coarse gravel recruitment in this reach of the river.

These river altering activities converted this reach of the Tuolumne River channel from a natural river pool-riffle sequence, which had provided spawning and rearing habitat for Chinook salmon and steelhead, to a lake-cascade stream morphology, with steep gravel gradients and long pools in between gravel bars, and with swift water unsuited to spawning and rearing habitat for salmon and steelhead. The Tuolumne River historically served as spawning and rearing habitat for large populations of Chinook salmon and steelhead. The Chinook salmon and steelhead populations have declined significantly over the past several decades throughout their range. Central Valley Steelhead are listed as Threatened pursuant to the Federal Endangered Species Act (FESA). Fall-run Chinook salmon are also California Species of Special Concern.

The proposed restoration and enhancement of spawning and rearing habitat in the Tuolumne River for these fish species is needed for their continued survival and recovery from the current threat of decline and ultimate extinction. Since the construction of upstream dams created a barrier to prevent the Chinook salmon and steelhead from migrating upstream of the dams for spawning above La Grange, there is no feasible alternative to the reconstruction and enhancement of spawning and rearing habitat within the main channel of the Tuolumne River. This reach of the river has not been able to recover natural channel and floodplain features and habitats. If the project is not constructed with mechanical intervention, the Chinook salmon and the steelhead will likely continue to lose population numbers. The proposed restoration and enhancement of salmonid habitat will also benefit other aquatic and terrestrial animals in and around the Tuolumne River. The proposed reconstruction and enhancement of spawning and rearing gravel habitats for the Chinook salmon and steelhead and the proposed revegetation for fish and wildlife habitat improvements are needed not only to assure the survival of these species, but are also needed to meet the recreational needs of Central Valley fishermen and the livelihood of California's commercial fishermen.

Construction Schedule

Construction is expected to occur within three-to-five construction seasons. Construction is expected to begin in approximately July 2021 with completion in October 2025.

1.2 PROJECT SETTING

The Project is proposed to restore and enhance the quantity and quality of salmon and steelhead spawning and rearing habitat along the Tuolumne River in Stanislaus County,

through reestablishment of natural floodplain processes where they have been altered during the past century

The Project site consists of two undeveloped agricultural parcels, totaling 146.7+ acres and 42.8± acres containing Tuolumne River Miles 43.5± to 44.5±, with some river meanders and an extensive floodplain. A preliminary aquatic resources delineation map has been prepared for the Project and is pending USACE verification. Approximately 123.6 acres of the Project site are considered Waters of the United States.

Elevations within the Project footprint range between 135± feet and 150± feet above mean sea level (amsl). Portions of the Project are visible from Yosemite Boulevard (State Route 132) to the north and homes on the bluff north and south of the site. The Project is surrounded almost entirely by agricultural parcels with isolated homes along the north and south river bluffs at 200± feet amsl and overlooking the river. Access to the site is provided directly from SR132 through portions of a horse ranch and walnut orchard along the northern bank to the Project site.

The site is completely fenced, and locked gates prevent unauthorized access. A ranch road meanders through the Project site which was grazed during portions of the year to reduce fire danger from overgrown vegetation. The site is posted for limited fishing access.

The Tuolumne River is a U.S. Geological Survey designated perennial stream, lined with Valley oaks, willows, cottonwoods and blackberries and has a large floodplain that is subject to flooding. River-altering activities from the last century converted this reach of the Tuolumne River channel from a natural river pool-riffle sequence, to a lake-cascade stream morphology, with steep gravel gradients and long pools in between gravel bars, and with swift water.

On-site vegetation includes the Arroyo willow series, Fremont cottonwood series and California annual grassland series (Sawyer and Keeler-Wolf, 1995). These series support several oak species, ash and white alder in addition to willow and cottonwood.

Riparian vegetation has been degraded or altered from past mining and agricultural land uses. Remnant “natural” and regenerated riparian vegetation will be minimally disturbed as shown in **Figure 5**. Revegetation in the form of riparian habitat restoration and enhancement in previously disturbed areas as well as areas where trees, brush or other riparian vegetation will be removed during project execution will occur in accordance with the Project’s revegetation plan.

Elderberries (*Sambucus mexicana*) are scattered on the Project site. All elderberry shrubs located on the project site will be retained and will not be disturbed.

Restoration already has occurred in the western portion of the overall Bobcat Flat Restoration Project site (i.e., Bobcat Flat West-Phases I and II) along the Tuolumne River. This is the proposed final phase of the Bobcat Flat Restoration Project.

Figure 1: Regional Location

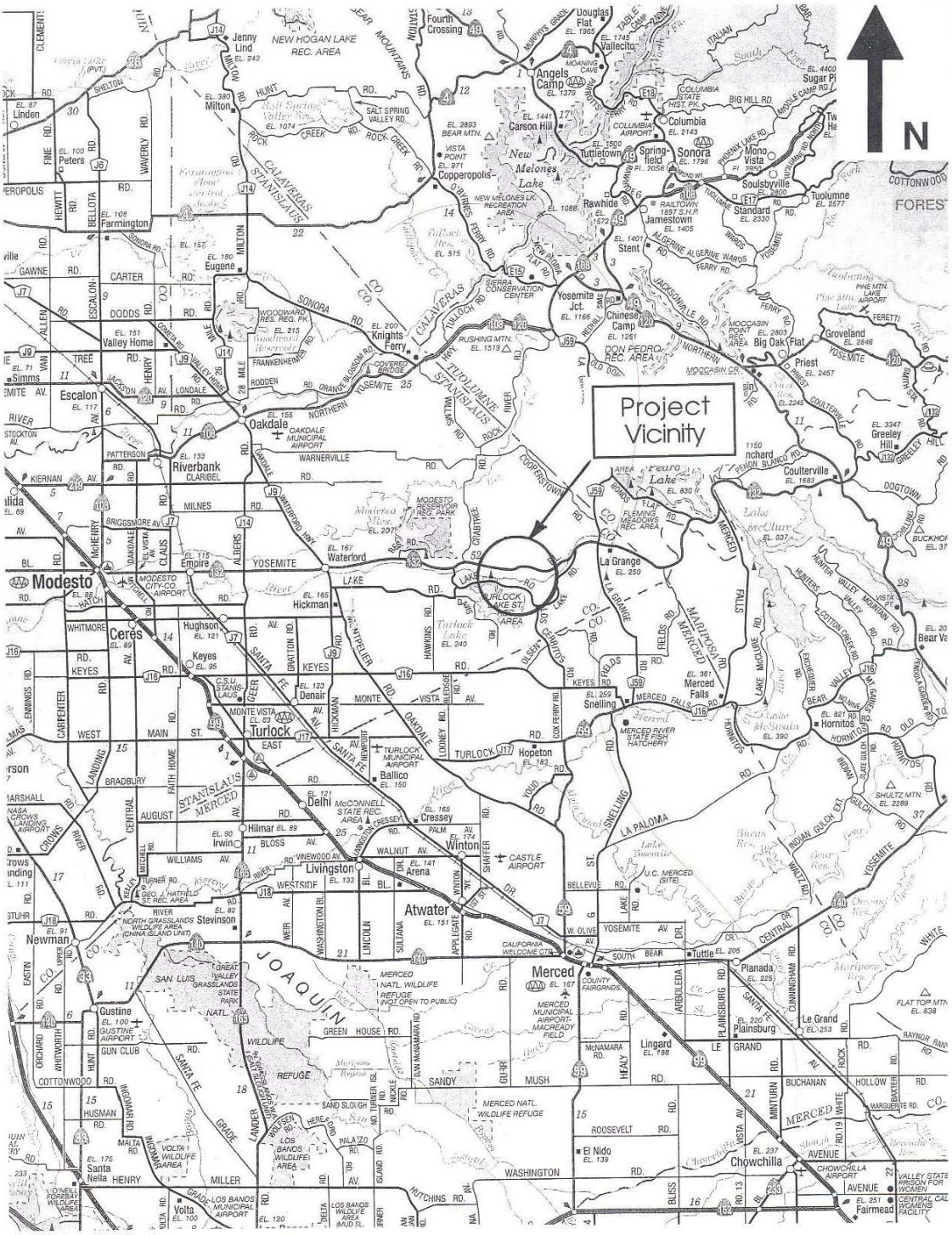


Figure 2: Project Location – Cooperstown USGS 7.5' Quadrangle

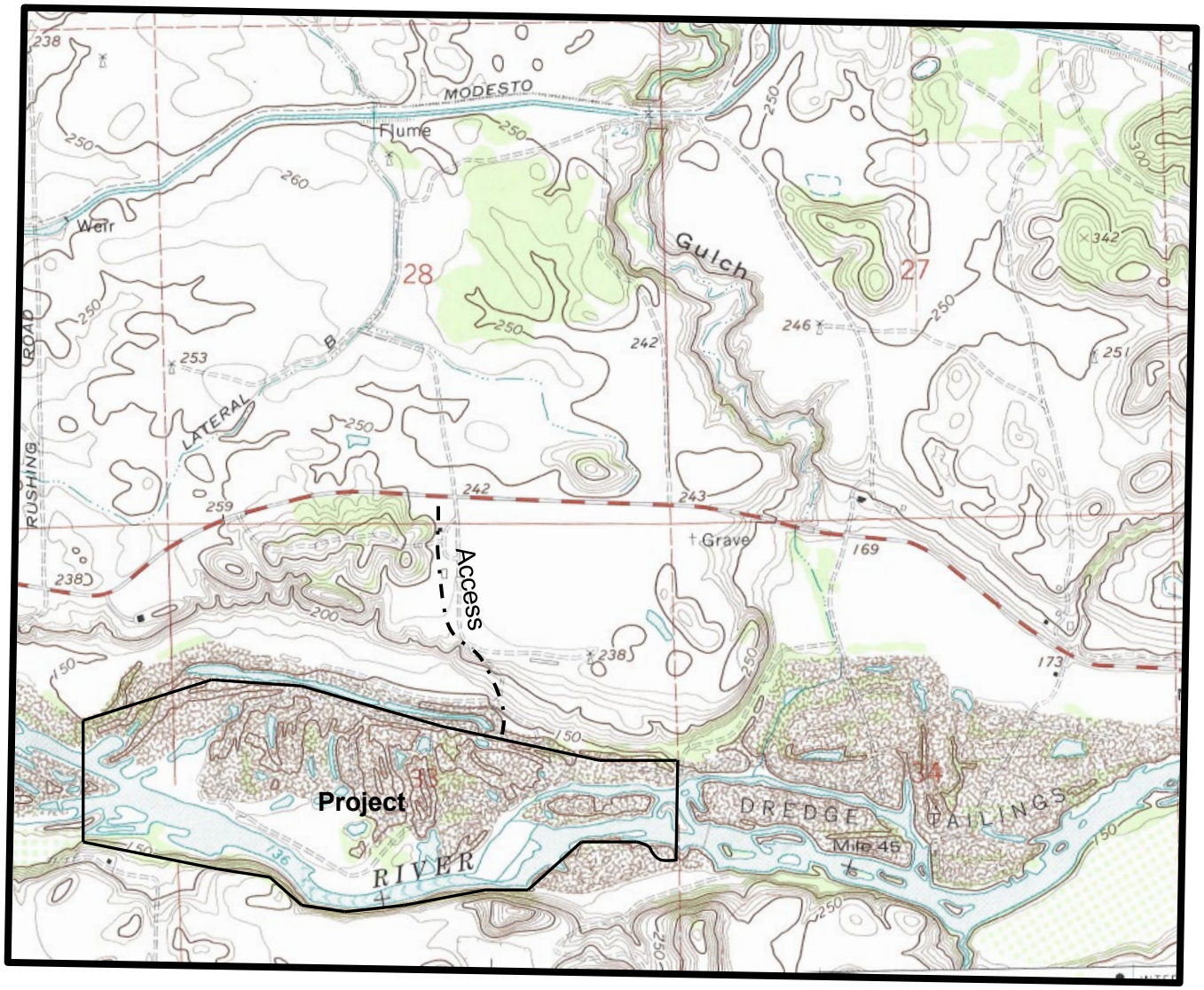


Figure 3: Project Access (Existing Ranch Roads)

Figure 4: Project Design 1 of 2

Project Area	Description
FP	Floodplain Bench
IC	In-Channel Feature
SC	Side Channel
W	Wetland

TUOLUMNE RIVER CONSERVANCY
McBain Associates
TUOLUMNE RIVER RESTORATION
BOBCAT FLAT PHASE III REHABILITATION SITE
Conceptual Design Meeting Concept 1 Final
PLANFORM LAYOUT
ARCATA, CA June 13, 2018 SHEET 1

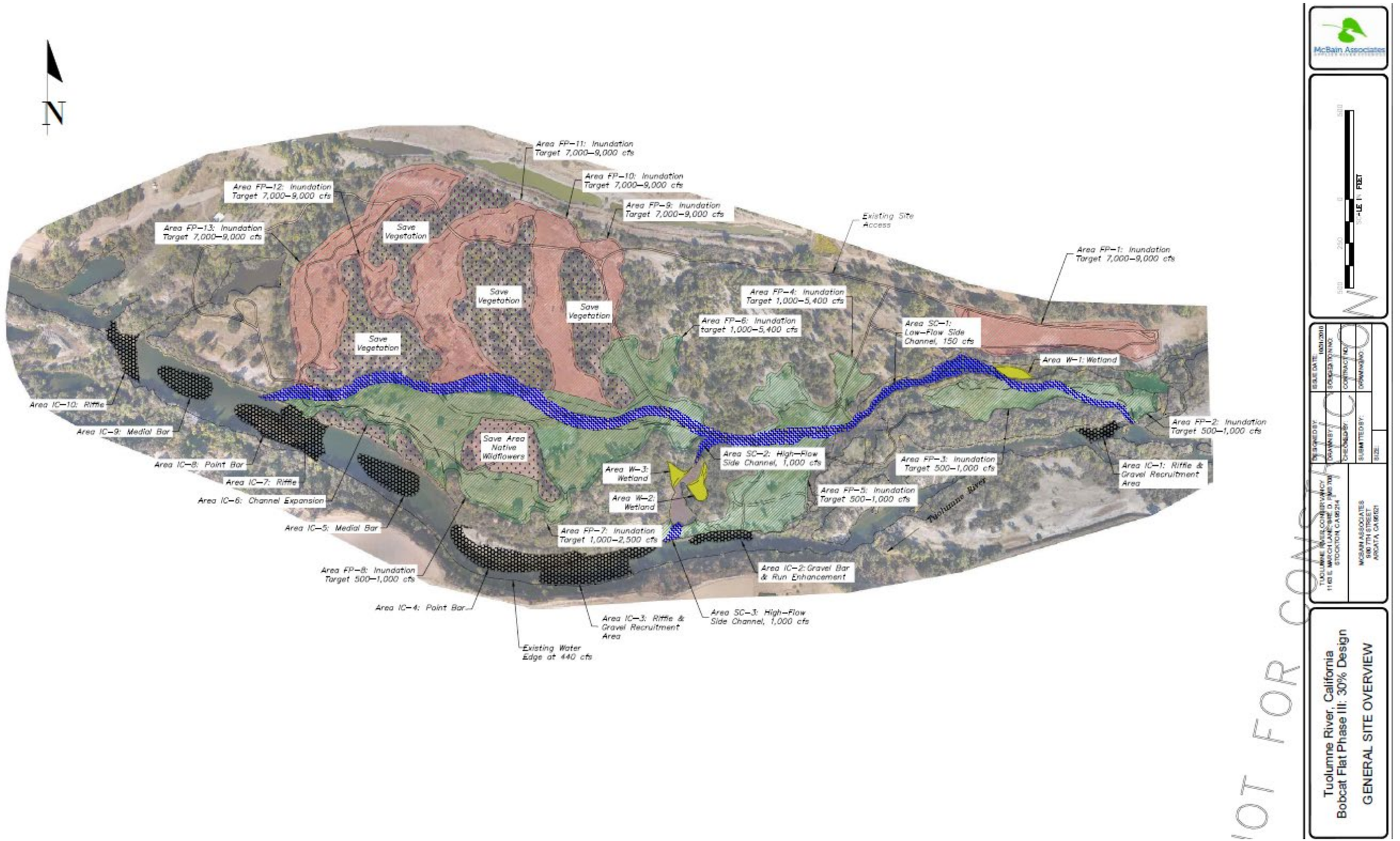
Legend

Inundation Target 500-1,000 cfs	Riffle Enhancement Gravel Placement	Proposed High Flow Side Channel	New Ranch Road Alignment
Inundation Target 1,000-3,000 cfs	Run Enhancement Gravel Placement	Proposed Gravel Bar Construction	Wetland Enhancement
Inundation Target 3,000-7,000 cfs	Gravel Recruitment Pile	Roughness Element Willow Trenches	Existing Ranch Roads
Inundation Target > 9,000 cfs	Proposed Riffle Construction	Proposed Channel Expansion	Proposed Low Flow Side Channel

Notes

1) Over-sized rock for design may be trucked from Phase I or purchased
2) Incorporate wood into off-channel features for turtle basking and cover for salmonids
3) Maintain existing ranch roads at floodplain grade through constructed surfaces
4) Move road away from elderberry patch along northeast corner of property (9,000+ cfs floodplain)

Figure 5: Project Design 2 of 2



1.3 PUBLIC RESOURCE CODE SECTION 21080.3.1 CONSULTATION

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California tribes as part of CEQA. Under AB 52, tribes requesting formal consultation from the Lead Agency are notified of the project prior to the preparing the CEQA document. The results of that consultation are summarized in Section 2.5.

1.4 CEQA PROCESS

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

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

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

1.5 INCORPORATION BY REFERENCE

The following studies applicable to the proposed Project are hereby incorporated by reference.

Anderson, Kd. January 21, 2019. Bobcat Flat East (Phase III) Project Air Quality Analysis

Augustine Planning Associates, Inc. March 2019. *Biological Resources Study Supplemental Memo Bobcat Flat Phase III.*

Davis-King & Associates, September 2004. *Historic Properties Survey Report of the Proposed Bobcat Flat (River Mile 43) Coarse Sediment Introduction Project, Tuolumne River near La Grange, Stanislaus County, California.*

Ibid. March 2019. Central California Information Center CHRIS records search (2018); Native American Consultation

McBain Associates. June 2018. *Tuolumne River Restoration Conceptual Design Concept 1 Final*.

Ibid. November 2, 2018. *Draft Bobcat Flat Phase III 30% Design Report*

Monk & Associates. July 31, 2018. Environmental Consultants. *Draft Aquatic Resources Delineation Map Bobcat Flat Phase III Channel and Floodplain Restoration Project Site.*

Moore Biological Consultants. March 11, 2010. Technical Memorandum: *Baseline Biological resources Assessment: Bobcat Flat River Mile (RM) 43 Phase II Restoration Project, Stanislaus County, California.*

United States Department of Commerce National Oceanic and Atmospheric Administration National Marine Fisheries Service Southwest Region. June 25, 2010. Finding of "not likely to adversely affect" letter.

Copies of these studies, unless identified as confidential, may be viewed during regular business hours at or requested from:

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1.6 OTHER PUBLIC AGENCY APPROVALS

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

Table 1: Other Public Agency Approvals or Reviews that May be Required

Permitting Agency	Permit/Authorization
San Joaquin County	Grading Permit (or waiver) from the Stanislaus County Department of Public Works (Stanislaus County Code Section 16.05.060) Conditional Use Permit, or Waiver, from the Stanislaus County Community Development Department (Stanislaus County Code Section 21.20.030)
US Army Corps of Engineers	Encroachment Permit; Authorization under federal Clean Water Act Section 404 [**404 Permit**] (CWA Section 404)
California State Lands Commission	Encroachment Permit for the California State Lands Commission (Public Resources Code Section 6221)
Central Valley Flood Protection Board	Central Valley Flood Protection Board (CVFPB) [**Encroachment Permit**], (CA Code of Regulations, Title 23, Division 1, Article 3, Section 6)
Stanislaus County Air Pollution Control District	Prepare, submit and secure approval for a Dust Control Plan from the San Joaquin Valley Air Pollution Control District. (APCD, Regulation VIII) – aka Regulation VIII Fugitive PM10 Prohibitions Construction Notification Form Secure an Authorization to Construct permit, or waiver, from the San Joaquin valley Air Pollution Control District (APCD Rule 2010)
California Regional Water Quality Control Board	Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit [California's National Pollutant Discharge Elimination System (NPDES) General Permit; A federal Clean Water Act Section 401 Water Quality Certification [**401 Permit**] (CWA Section 401);
California Department of Fish and Wildlife	Lake or Streambed Alteration Agreement [**LSAA**] (California Fish and Game Code Section 1602 et seq.)
All other applicable local, state and federal permits required by law.	

2.0 ENVIRONMENTAL EVALUATION

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

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

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

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

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

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION:

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

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

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

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

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

Stephanie Tadlock
Senior Environmental Scientist/Supervisor
Central Valley Regional Water Quality Control Board

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

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

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

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

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

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

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

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

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

2.1 AESTHETICS

I. AESTHETICS. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

2.1.1 Background and Setting

The Project is set in a rural agricultural area approximately 5.0± miles west of La Grange and 11.4± miles east of Waterford. Elevations within the Project footprint range between 135± feet and 150± feet above mean sea level (amsl). Limited portions of the Project are visible from Yosemite Boulevard (State Route 132) to the north and from scattered homes on bluffs at 200± feet amsl overlooking the river and Project site.

The visual quality of the site may be altered temporarily with the extraction, stockpiling and processing of cobbles and coarse gravels from the on-site flood plain and dredger tailings and re-contouring for a new high flow channel. Significant areas of Valley-foothill riparian woodlands are not proposed to be altered by the project.

2.1.2 Analysis

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

Less than Significant Impact. The Project site is only minimally visible from SR 132. Given the narrow turns along that roadway and the speeds of autos travelling by the site, there is a low likelihood that travelers along SR 132 will be able to see the Project site. Approximately three homes sitting on bluffs overlooking the Project site will have views temporarily altered due to the extraction, stockpiling, and processing of cobbles and coarse gravels from the on-site flood plain and dredger tailings and re-contouring for a new high flow channel. However, these temporary visual disturbances will be replaced by contours and vegetation more closely resembling the pre-mining landscape – a less than significant and potentially beneficial visual impact.

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

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

No Impact. SR 132 is neither a designated nor an eligible state scenic highway. Therefore, no substantial adverse impacts to scenic resources within a state scenic highway are anticipated.

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

c. Substantially degrade the existing visual character or quality of the site and its surroundings?
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. As previously stated, the Project will create only temporary changes during Project construction resulting in a final design resembling the natural, pre-mining landscape – a less than significant impact (see paragraph a). No lighting will occur in conjunction with the Project and no impacts to day or nighttime views related to substantial light or glare are anticipated.

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

2.2 AGRICULTURE AND FORESTRY RESOURCES

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

2.2.1 Background and Setting

The site is entirely surrounded by agricultural uses. Both Project parcels are under a Williamson Act Land Conservation Contract.

The California Department of Conservation Farmland Mapping & Monitoring Program Maps identify the Project site as “tailings.”

2.2.2 Analysis

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?
d) Result in the loss of forest land or conversion of forest land to non-forest use?
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact.

On-site soils are classified as DI (dredge and mine tailings). These soils meet neither the California Department of Conservation Farmland Mapping and Monitoring Program criteria for prime or unique farmland, nor criteria for farmlands of statewide importance. The soils do not meet any of the criteria for prime or potential prime agricultural land as established in the Stanislaus County General Plan. Therefore, no impact is anticipated to important farmlands.

The project site has a Stanislaus County General Plan land use designation of Agriculture and is zoned A-2-40 (General Agriculture) under the Stanislaus County Zoning Code. The project site is subject to Williamson Act Land Conservation contracts with Stanislaus County and has been grazed during portions of the year to keep the fire danger down from overgrown vegetation. The General Agriculture (A-2-40) zoning and Williamson Act Land Conservation contracts provide for open space uses, as well as agricultural uses. These open space and agricultural uses are proposed to continue and will not be in conflict with the proposed habitat restoration and enhancement project. Therefore, no impacts or conflicts related to zoning for agricultural uses or Williamson Act contracts are anticipated.

No timber production lands exist on or adjacent to the proposed Project. Therefore, no conversion of forest land or agricultural lands to an alternative use is anticipated and no impact will occur.

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

2.3 AIR QUALITY

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☒	☐	☐

2.3.1 Background and Setting

Stanislaus County's air quality has been designated non-attainment by the California Air Resources Board (ARB) for ozone (O_3) and fine particulate matter and dust (PM 2.5 and PM10). Stanislaus County has been designated by the EPA as non-attainment for PM2.5 and 8-hour ozone. The Federal Clean Air Act (CAA) and California Clean Air Act require areas designated non-attainment to reduce emissions until standards are met.

Ozone

Ozone is formed in the atmosphere through chemical reactions between pollutants emitted from vehicles, factories and other industrial sources, fossil fuels, combustion, consumer products, evaporation of paints, and many other sources. Hydrocarbons and nitrogen oxide gases react in the presence of sunlight to form ozone. Hot, sunny, and calm weather promotes ozone formation.

Ozone, an important component of smog, is a highly reactive and unstable gas capable of damaging living cells, such as those present in the linings of the human lungs. It is a powerful oxidant – its actions can be compared to household bleach, which can kill living cells (such as germs or human skin cells) upon contact.

Particular Matter (PM 2.5 and PM 10)

Airborne particulate matter (PM) is not a single pollutant, but rather is a mixture of many chemicals. It is a complex mixture of solids and aerosols composed of small droplets of liquid,

dry solid fragments, and solid cores with liquid coatings. Particles vary widely in size, shape and chemical composition, and may contain inorganic ions, metallic compounds, elemental carbon, organic compounds, and compounds from the earth's crust. Particles are defined by their diameter for air quality regulatory purposes. Those with a diameter of 10 microns or less (PM10) are inhalable into the lungs and can induce adverse health effects. Fine particulate matter is defined as particles that are 2.5 microns or less in diameter (PM2.5). Therefore, PM2.5 comprises a portion of PM10.

Emissions from combustion of gasoline, oil, diesel fuel or wood produce much of the PM2.5 pollution found in outdoor air, as well as a significant proportion of PM10. PM10 also includes dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, wind-blown dust from open lands, pollen and fragments of bacteria.

Implementation of the Bobcat Flat East (Phase III) project would result in construction activity, which would generate air pollutant emissions. Construction activities such as grading, excavation and travel on unpaved surfaces would generate dust, and can lead to elevated concentrations of inhalable particulate matter smaller than 10 microns in diameter (PM_{10}), and fine particulate matter small than 2.5 microns in diameter ($PM_{2.5}$). The operation of construction equipment results in exhaust emissions. A substantial portion of the construction equipment is powered by diesel engines, which produce relatively high levels of nitrogen oxide (NO_x) emissions. Construction activity could also potentially entrain naturally occurring asbestos (NOA), if present in the soil.

Significance Thresholds

Ozone Precursor, Particulate Matter, and Carbon Monoxide Emissions

To evaluate the significance of pollutant emissions impacts, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has established significance thresholds for emissions of ozone precursors reactive organic gas (ROG) and NO_x, PM_{10}, $PM_{2.5}$, sulfur oxides (SO_x) and carbon monoxide (CO) (San Joaquin Valley Air Pollution Control District 2019). These types of emissions are referred to as "criteria" pollutants. Significance thresholds used in this report are from the SJVAPCD.

The SJVAPCD significance thresholds used in this report in the evaluation of criteria pollutant impacts associated with the proposed project are:

- 100 tons per year (tpy) of CO,
- 10 tpy of NO_x,
- 10 tpy of ROG,
- 27 tpy of SO_x,
- 15 tpy of PM_{10}, and
- 15 tpy of $PM_{2.5}$.

If the proposed project's criteria pollutant emissions exceed the above pollutant thresholds, the project will be considered to have a significant effect on air quality.

Naturally Occurring Asbestos

Naturally occurring asbestos has been identified as a toxic air contaminant (TAC) by the ARB. No quantitative significance thresholds have been set for NOA. However, the California Department of Conservation internet website provides a map that may be used as a

screening- level indicator of the likelihood of NOA being present on the proposed project site (http://www.conservation.ca.gov/cgs/minerals/hazardous_minerals/asbestos/Pages/Index.aspx). The map, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (California Department of Conservation 2000) shows the locations considered to be subject to elevated risk of containing NOA.

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

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

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

Methodology

The Road Construction Emissions Model was used to quantify criteria pollutant and GHG emissions associated with the Bobcat Flat East (Phase III) project. A copy of the detailed modeling results may be found in **Attachment B (Air Quality Study)**.

2.3.2 Analysis

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

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant

Criteria pollutants

Construction of the proposed project would result in the generation of criteria pollutant emissions. The following table shows annual project-related criteria pollutant emissions. Construction is expected to occur in the period 2021 to 2025. Over time, newer construction equipment meeting more recent stricter emissions standards will replace older equipment that generates relatively higher levels of emissions. As a result, the highest levels of project-related emissions are expected to occur during the first year of construction: 2021. The results shown in the following table are for the year 2021.

Table 2: Bobcat Flat East (Phase III) Criteria Pollutant Emissions

Year or Significance Variable	Type of Pollutant Emissions					
	Carbon Monoxide	Nitrogen Oxides	Reactive Organic Gases	Sulfur Oxides	Inhalable Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Year 2021 (worst case)	1.35	1.65	0.17	<0.01	9.56	2.05
Significant Impact	No	No	No	No	No	No
Significance Threshold	100	10	10	27	15	15

Sources: Road Construction Emissions Model and San Joaquin Valley Air Pollution Control District 2018
Note: All values are expressed in tons per year

None of the values shown in the preceding table would exceed the SJVAPCD significance thresholds. Therefore, this impact is considered less than significant, and no mitigation measures are required.

As noted in the *Project Description* section of this report, the Bobcat Flat East (Phase III) project would not result in a long-term change in system capacity. As a result, the project would not result in a change in long-term operational criteria pollutant emission. This impact is considered less than significant and no mitigation measures are required.

Naturally Occurring Asbestos (NOA)

The map, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* shows areas more likely to contain NOA. Soil-disturbing construction activity in these areas would result in an elevated risk of entraining NOA. The asbestos map shows the project site is located approximately 12 miles away from the nearest area considered more likely to contain NOA – in the area trending northwest to southeast near Lake Don Pedro.

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

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation Incorporated.

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

dwellings, schools, parks, playgrounds, childcare centers, convalescent homes, and hospitals are examples of sensitive land uses.

Approximately three residences occur in proximity to the Project site. No other sensitive receptors have been identified. During construction, residences could be exposed to air emissions including dust and equipment emissions during construction activities, or smoke associated with site preparation--a potentially significant impact.

The following mitigation measures are included to minimize the potential for exposing these sensitive receptors to construction dust and equipment emissions.

Mitigation Measure AQ-1: Dust Control Plan
Prior to commencing construction, the Project proponent/Contractor shall prepare a Dust Control Plan in compliance with the San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation VIII (Fugitive Dust Prohibitions). The Project Proponent/Contractor shall be responsible for implementing the approved Dust Control Plan to include, at a minimum:

A. A water truck or other watering device shall be on the construction site on all working days when natural precipitation does not provide adequate moisture for complete dust control. Said watering device shall be used to spray water on the site at the end of each day and at all other intervals, as need dictates, to control dust. All activities shall be effectively controlled of fugitive dust emissions using application of water including for wetting during gravel processing, extraction activities, on haul roads. For dry screening activities, a mist screen shall be used as prescribed by the SJVAPCD.

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

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

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

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

Mitigation Monitoring AQ-1: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the Project Proponent/Contractor.

Mitigation Measure GHG-1: Authority to Construct/Permit to Operate
(see Section 2.7)

Mitigation Measure GHG-2: Equipment Emissions
(see Section 2.7)

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

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant with Mitigation Incorporated.
The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines may be considered offensive to some individuals. Odors would be temporary (construction-related only) and would disperse with distance from the source. However, given the presence of isolated residences, construction-generated odors could result in a temporary significant impact. Therefore, the following mitigation measure (described in the preceding section) is proposed.

Mitigation Measure GHG-2: Equipment Emissions
(see Section 2.7)

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

2.4 BIOLOGICAL RESOURCES

IV. BIOLOGICAL RESOURCES: Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on 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?	☐	☐	☐	☒

2.4.1 Background and Setting

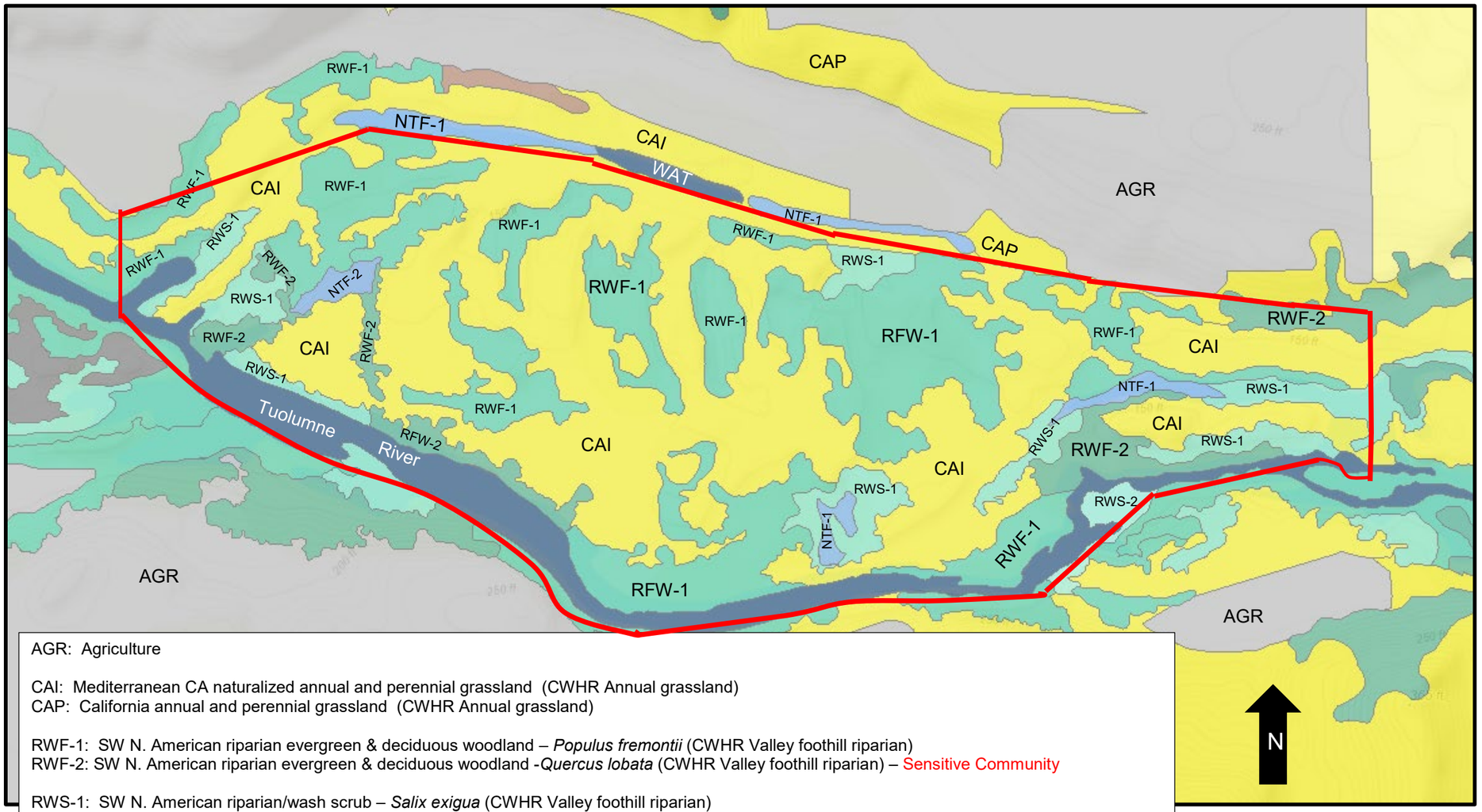
Natural resources were identified through a review of databases and species lists from the United States Fish and Wildlife Service (USFWS), California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) and CalFlora databases (January 2019). **Table 3** lists the potential for all species identified in these databases and lists to occur on site. All state and/or federally listed species identified are addressed and those with potential to occur within the biological study area (BSA) are analyzed in the following.

Site surveys were conducted by foot on the following dates: September 23, 2017, June 4, 2018, August 3, 2018 and February 1, 2019 by Amy Augustine, Augustine Planning Associates, Inc.; and by Monk & Associates, Inc. biologists Geoff Monk and Sarah Lynch in July and September 2018. **Attachment C** identifies the species encountered during field surveys.

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

On-site vegetation is identified in **Figure 6**.

Figure 6: Project Vegetation



AGR: Agriculture

CAI: Mediterranean CA naturalized annual and perennial grassland (CWHR Annual grassland)
CAP: California annual and perennial grassland (CWHR Annual grassland)

RWF-1: SW N. American riparian evergreen & deciduous woodland – *Populus fremontii* (CWHR Valley foothill riparian)
RWF-2: SW N. American riparian evergreen & deciduous woodland -*Quercus lobata* (CWHR Valley foothill riparian) – Sensitive Community

RWS-1: SW N. American riparian/wash scrub – *Salix exigua* (CWHR Valley foothill riparian)
RWS-2: SW N. American riparian/wash scrub – *Salix lasiolepis* (CWHR Valley foothill riparian)

NTF-1: Naturalized temperate Pacific freshwater vegetation (CWHR Freshwater emergent wetland)
NTF-2: Naturalized temperate Pacific freshwater vegetation - *Hydrilla verticillata* - *Myriophyllum spicatum* (CWHR Freshwater emergent wetland)

WAT: Perennial lake, pond

Source: CNDDB BIOS – Great Valley Ecoregion Vegetation (2012-2014)

2.4.2 Analysis

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

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

Less than Significant with Mitigation Incorporated.
The potential for special status species identified in CDFW, USFWS, CNDDB and CNPS databases to occur on site is evaluated in **Table 3.** The locations of potential special status species are identified in **Figure 7**. These species include elderberry shrubs (potential habitat for the Valley elderberry longhorn beetle) and western pond turtles.

Table 3: Evaluation of Species with Potential to Occur at the Bobcat Flat Phase III (East)

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
Plants			
Hoover's calycadenia *Calycadenia hooveri*	BLM-S CNPS 1B.3	Cismontane woodland, valley and foothill grassland. Exposed, rocky, barren soil. 60-260 m.	**U** - Two CNDDB records for the species occur within 4 miles of the project site. Both are from rocky volcanic-type soils. Per aerial photography, habitat has been converted to agricultural and nursery use at one site. The other record is from 1971 on a rocky hilltop, Ione formation on a dry, rocky slope. The site lacks the same rocky barren soil (on-site soils are compacted dredge and mine tailings) and lacks grasslands (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Succulent owl's clover *Castilleja campestris* var. *succulenta*	FT SE CNPS 1B.2	Vernal pools. Moist places, often in acidic soils. 20-705 m.	**U** - CNDDB records for the species occur within 4 miles of the project site. Records occur in drying vernal pools. The site lacks vernal pools (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Beaked clarkia *Clarkia rostrata*	BLM-S CNPS 1B.3	Cismontane woodland, valley and foothill grassland. North-facing slopes; sometimes on sandstone. 60-915 m.	**U** – A CNDDB record for the species occur within 4 miles of the project site on bluffs along a gulch in valley grassland-foothill woodland on light, sandy soil. The site lacks preferred sandy soils, grasslands and foothill woodlands (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Hoover's cryptantha *Cryptantha hooveri*	CNPS 1A	Valley and foothill grassland, inland dunes. In coarse sand. 50-365 m.	**U** - CNDDB records (1937) for the species occur within 2 miles of the project site. The site lacks coarse sandy soils and grasslands (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Dwarf downingia *Downingia pusilla*	CNPS 2B.2	Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 1-490 m.	**U** - CNDDB records for the species occur within 4 miles of the project site in association with vernal pools. The Project site lacks vernal pools and grasslands (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Hoover's spurge *Euphorbia hooveri*	FT CH	Vernal pools. Vernal pools on volcanic	**U** - CNDDB records for the species occur within 2 miles of the project site in association with vernal pools. The Project site lacks vernal pools

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
	CNPS 1B.2	mudflow or clay substrate. 25-130 m.	(unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Forked hareleaf *Lagophylla dichotoma*	CNPS 1B.1	Cismontane woodland, valley and foothill grassland. Sometimes clay. 190-335 m.	**U** - A 1937 CNDDB record for the species occurs more than 4 miles from the project site. The site lacks grasslands and the site is not typical of cismontane woodlands (i.e., highly disturbed). Therefore, habitat is considered unsuitable. The species was not identified during surveys. Therefore, the species is unlikely to occur.
Merced monardella *Monardella leucocephala*	CNPS 1A	Valley and foothill grassland. Known from riverbeds, moist sandy depressions; requires moist subalkaline sands association w/low elevation grassland. 35-100 m.	**U** - CNDDB records for the species occur within 2 miles of the project site. The record notes the site as being sandy grain fields in rolling country. The site lacks grasslands including grasslands in association with riverbeds (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur. (Although it is noted that off-site areas surrounding the site includes potential habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Colusa grass *Neostapfia colusana*	FT CH SE CNPS 1B.1	Vernal pools. Usually in the bottoms of large, or deep vernal pools; adobe soils. 5-125 m.	**U** – Several CNDDB records for the species occur within 2 miles of the project site in association with vernal pools. The site lacks vernal pools (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Hairy Orcutt grass *Orcuttia pilosa*	FE CH SE CNPS 1B.1	Vernal pools.	**U** - CNDDB records for the species occur within 2 miles of the project site. The database notes that one of the nearest sites appears to have been altered by agriculture and the populations are extirpated. The Project site lacks vernal pools (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Hartweg's golden sunburst *Pseudobahia bahiifolia*	FE SE CNPS 1B.1	Valley and foothill grassland, cismontane woodland. Clay soils, often acidic. Predominantly on the northern slopes of knolls, but also along shady creeks or near vernal pools. 60-170 m.	**U** - CNDDB records for the species occur over 3 miles from the Project site on Amador loam rocky thin-soils on north, west, and east-facing slopes in annual grassland on small hill; along canyon, banks and terraces of creek; scattered valley oak riparian woodland at south end of occurrence. The Project site lacks Amador loam soils in combination with grasslands and shady creeks/vernal pools. The species was not identified during surveys. Therefore, the species is unlikely to occur.
Greene's tuctoria *Tuctoria greenei*	FE CH	Vernal pools in open grasslands. 25-1325 m.	**U** - CNDDB records for the species occur within 2 miles of the project site in dry pools with clay soil. The Project site lacks vernal pools

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
	SR CNPS 1B.1		(unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.
Animals			
Crustaceans/Insects			
Conservancy Fairy Shrimp *Branchinecta conservatio*	FE IUCN-E	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**U -** The nearest CNDDB record is more than 15 miles from the project site. Site lacks vernal pools. Suitable habitat for this species does not exist on site.
Vernal Pool Fairy Shrimp *Branchinecta lynchi*	FT CH	Valley & foothill grassland, Vernal pool, wetland; Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**U –**The nearest CNDDB record is more than 5 miles from the project site. Site lacks vernal pools. Suitable habitat for this species does not exist on site.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	Elderberry shrubs	**O** –Elderberry shrubs are located within the Project boundaries (**Figure 7**), therefore, the species has the potential to occur. Mitigation to avoid VELB is included herein.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	Vernal pools and swales containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**U –** The nearest CNDDB occurrence record is more than 4 miles southwest of the project site in seasonal wetlands and vernal pools. The BSA lacks grasslands and vernal pools/swales suitable for the species. Therefore, it is unlikely to occur.

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
Fish			
Delta smelt *Hypomesus transpacificus*	FT SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. Aquatic, Estuary; Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	**P** - No CNDDB records for the species identify the Lower Tuolumne River as habitat. However, due to their existence within the Sacramento-San Joaquin Delta system, the species is considered to have a low potential to be present in the BSA, a tributary of the Sacramento-San Joaquin Delta system.
Hardhead *Mylopharodon conocephalus*	CDFW-SSC USFS-S	Low to mid-elevation streams in the Sacramento-San Joaquin Drainage. Clear deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	**P –**A CNDDB record for the species occurs within the Tuolumne River within the BSA. Suitable habitat for this species exists in the Tuolumne River.
Steelhead – Central Valley DPS *Oncorhynchus mykiss iridueus pop. 1(11)*	FT	Populations in the Sacramento and San Joaquin rivers and their tributaries including the lower Tuolumne River, from its mouth in the San Joaquin River to La Grange Dam (River Mile 52).	**O –** Suitable habitat for this species exists in the Tuolumne River. The CNDDB maps all of the Lower Tuolumne River as habitat for this species. The Project site is located within the Central Valley DPS. The proposed Project will enhance habitat for this species.
Amphibians			
California Tiger Salamander *Abystoma californiense*	FT ST CDFW-WL	Cismontane woodland, Meadow & seep, Riparian woodland, Valley & foothill grassland, Vernal pool	**U**- There are two CNDDB records for the species within two miles of the project site. One site was converted to agriculture and the species is assumed extirpated. The other site is upstream along the Tuolumne River in natural habitat. The BSA, unlike the nearest CNDDB record site, lacks the natural habitat and underground refuges found upstream. The Project is largely hard-packed cobbled "pavement" which discourages burrows. CTS were not

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
		Wetland; Need underground refuges, especially ground squirrel burrows, & vernal pools or other seasonal water sources for breeding.	identified during site surveys. Therefore, they are considered unlikely to occur.
California red-legged frog *Rana draytonii*	FT CDFW-SSC	The species prefers quiet pools of streams, marshes, and occasionally ponds. Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergency riparian vegetation. 11-20 weeks of permanent water and access to estivation habitat necessary.	**U –** The nearest CNDDB records for the species is more than 15 miles from the Project site. Flows in the Tuolumne River are considered too swift to allow for successful egg-laying. The species has not been detected in relatively stagnant backwaters. The species was not detected during surveys. Based on the lack of records for the species, the lack of appropriate habitat, the species is not expected to occur within the BSA. However, improvements in conjunction with the proposed project could provide potential future habitat for the species.
Western spadefoot *Spea hammondii*	BLM-S CDFW-SSC IUCN-T	Occurs primarily in grassland habitats. Can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	**U -** Two CNDDB records occur within 4 miles of the Project site. Both occur on grasslands with associated vernal pools. The Project site lacks grasslands and vernal pools. The species was not identified during surveys. The species is unlikely to occur.
Reptiles			
Western pond turtle *Actinemys marmorata*	FPT/FPE BLM-S CDFW-SSC USFS-S	Aquatic turtle of ponds, marshes, rivers, streams and irrigated ditches usually with aquatic vegetation below 6,000 feet elevation. Requires basking sites and	**O** – Western pond turtles were documented on the Project site. Mitigation measures are included to minimize and avoid harm to the species. (**Figure 7**)

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
		suitable sandy banks or grassy open fields upland habitat for egg-laying.	
Giant garter snake *Thamnophis gigas*	FT	The snake is primarily associated with marshes and sloughs, less with slow-moving creeks, and absent from larger rivers. It is active from mid-March until October.	**U-** The nearest CNDDB record for this species is more than 20 miles outside the BSA. There are no marshes or sloughs within the BSA. The Tuolumne River is considered to be too swift to support the species. Therefore, the species is not expected to occur in the BSA due to lack of suitable habitat.
Birds			
Clark's grebe *Aechmophorus clarkii*	MBTA USFWS-BCC	Uncommon to fairly common on large lakes near coast and inland at low elevations, and rare in Great Basin.	**U –** No CNDDB records for this species occur within 50 miles. Project site is within the species' winter range. Preferred habitat (large lakes) do not occur on site. However, the species may occur west of the Project Site at Turlock Lake.
Tricolored blackbird *Agelaius tricolor*	MBTA BLM-S CDFW-SSC SCE FPE/c/ USFWS-BCC	Colonial species which requires open water, protected nesting substrate and foraging area with insect prey within a few kilometers of the colony.	**U-** CNDDB records for the species occur within 2 miles of the project site. One of two recorded sites believed extirpated. The site lacks necessary nesting substrate in combination with foraging habitat. The species was not located during surveys. The species is not expected to occur on site.
Golden eagle *Aquila chrysaetos*	MBTA BGEPA BLM-S CDF-S FPS CDFW-WL USFWS-BCC	Uncommon permanent resident and migrant throughout California, except center of Central Valley. Habitat typically rolling foothills, mountain areas, sage-juniper flats, desert. Cliff-walled canyons provide nesting habitat in most parts of	**P** -The nearest CNDDB record for the species occurs more than 30 miles from the Project site. Off-site cliffs adjacent to the Project site could provide nesting habitat; however, development of orchards in proximity to the cliffs likely do not provide ample foraging habitat. The species was not identified during surveys. The species is not expected to occur on site other than as an occasional (temporary) visitor. Preconstruction surveys will ensure that the species is not present on the Project site prior to commencing construction.

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
		range; also, large trees in open areas.	
Oak titmouse *Baeolophus inornatus*	MBTA USFWS-BCC	Oak woodlands. Cavity nester.	**O –** No CNDDB records for the species occur within 10 miles. The site provides suitable nesting habitat. The species was identified on the Project site. Preconstruction surveys will ensure that the species (nesting) continues to be absent from the Project site prior to commencing construction.
Swainson's hawk *Buteo swainsoni*	MBTA ST BLM-S USFWS-BCC	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**O** – A 1919 CNDDB record for the species occurs within 3 miles of the project site. The site provides suitable habitat for the species, although adjacent land provides marginal foraging habitat due to the presence of orchard-type agriculture. The species was identified on the Project site. Preconstruction surveys will ensure that the species (nesting) continues to be absent from the Project site prior to commencing construction.
Lawrence's goldfinch *Carduelis lawrencei*	MBTE USFWS-BCC	Uncommon in foothills surrounding Central Valley April through September. Breeds in open oak or other arid woodland and chaparral, near water. Typical habitats include valley foothill hardwood, valley foothill hardwood-conifer.	**U** - No CNDDB records are filed. The Project site is located outside the species normal range per CDFW's wildlife habitat relationship system. On-site vegetation is not typical of preferred habitat. The species was not identified during surveys. Therefore, the species is not expected to occur on site.

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
California horned lark *Eremophila alpestris actia*	MBTA CDFW-WL	Main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	**U** – A CNDDB recorded occurrence is found more than 5 miles from the Project Site. The site lacks the preferred short-grass/meadow habitat that attracts the species. The species was not located during surveys. The species is not expected to occur on site.
Saltmarsh common yellow-throat *Geothylypis trichas-sinuosa*	MBTA USFWS-BCC CDFW-SSC	Resident of the San Francisco Bay region in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**U**- The nearest CNDDB occurrence is more than 60 miles from the Project site. The project site is well outside the anticipated range of this species. The species was not present during surveys and is not expected to occur on site. The common yellowthroat (*Geothlypis trichas*), which occurs into the foothills in association with ponds and marshes, could potentially occur on site.
Bald eagle *Haliaeetus leucocephalus*	BGEPA MBTA SE BLM-S CDF-S FPS USFS-S USFWS-CC	Lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	**O -** The CNDDB records site records in February (with juveniles) and January (adult). One record occurs within 2 miles of the Project site. Bald eagles were observed twice within the Project boundaries. Once roosting adjacent to the river (February 1, 2019) and once soaring above the site (June 2018).
Lewis's woodpecker *Melanerpes lewis*	MBTA USFWS-BCC	Breeds in open forest and woodland with an open canopy and brushy understory. Requires dead trees for nest cavities.	**U** - A single CNDDB record occurs for this species in Plumas County. The species is known in the foothills especially from blue oak woodlands within annual grasslands which are not present on site. The species was not identified during surveys and is unlikely to occur.

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
Song sparrow *Melospiza melodia*	MBTA CDFW-SSC USFWS-BCC	Common resident of most of California. Prefers riparian, fresh or saline emergent wetland, and wet meadow habitats. Breeds in riparian thickets of willows, other shrubs, vines, tall herbs, and in fresh or saline emergent vegetation. In winter in much of northern California, also may be found far from water, in open habitats with thickets of shrubs or tall herbs. Usually avoids densely wooded habitats, except along forest edges.	**O** - The nearest CNDDB record occurs more than 30 miles from the Project Site, but along the Tuolumne River in the early 1900s. The species is referred to as the "Modesto population." A song sparrow was identified during surveys on the site. Preconstruction surveys will ensure that the species (nesting) continues to be absent from the Project site prior to commencing construction.
Long-billed curlew *Numenius americanus*	MBTA USFWS-BCC	Uncommon to locally very common as a winter visitant from early July to early April in the Central valleys, where the largest flocks occur. Preferred winter habitats include large upland herbaceous areas, and croplands. Large numbers of nonbreeders remain in some years in the Central Valley.	**U -** There are no CNDDB records for this species. The Project site is located within the species' winter range. However, the site lacks the preferred grassland/cropland that these wintering birds seek. The species was not identified during surveys and is not expected to occur on site.

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
Yellow-billed magpie *Pica nuttalli*	MBTA USFWS-BCC	Common, yearlong resident of the Central Valley. Inhabits valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, orchard vineyard, cropland, pasture, and urban habitats.	**O -** There are no CNDDB records for this species. The species was identified during surveys. Preconstruction surveys will ensure that the species (nesting) is not present prior to commencing construction.
Nuttall's woodpecker *Picoides nuttallii*	MBTA USFWS-BCC	Common, permanent resident of low-elevation riparian deciduous and oak habitats. Occurs in the lower portions of the Sierra Nevada.	**O -** There are no CNDDB records for this species. The species was identified during surveys. Preconstruction surveys will ensure that the species (nesting) is not present prior to commencing construction.
Spotted towhee (San Clemente) *Pipilo maculatus clementae*	MBTA USFWS-BCC CDFW-SSC	The species range is currently identified by CDFW as Santa Catalina and Santa Rosa islands (and extirpated from San Clemente island) in the Channel Islands.	**U -** There are no CNDDB records for this species. The common spotted towhee (*Pipilo maculatus*) was identified within the project boundaries. The Project site is well outside the known species range for *Pipilo maculatus clementae*. The species was not identified during surveys and is not expected to occur.
Least Bell's vireo *Vireo bellii pusillus*	FE SE	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite. Riparian forest, Riparian scrub, Riparian woodland	P - A 1919 CNDDB record for the species occur within 2 miles of the project site. Other records occur further south towards the Merced River. Records are all from May. The species was not identified during surveys; however, given the presence of riparian forest on site, the potential exists for the species to occur. Preconstruction surveys will ensure that the species (nesting) continues to be absent from the Project site prior to commencing construction.

Species	Status	Preferred habitat/a/	Likelihood to Occur on Site/b/ O= Present on Site (Occupied) U = Unlikely to Occur P = Potential to Occur
Mammals			
San Joaquin kit fox *Vulpes macrotis mutica*	FE SE	The species lives in annual grasslands or grassy open stages of vegetation dominated by scattered brush, shrubs, and scrub. Open, level areas with loose-textured soils supporting scattered, shrubby vegetation with little human disturbance represent suitable habitats for kit foxes. Some agricultural areas may support these foxes.	**P -** The nearest CNDDB records for the species are approximately 5 miles from the Project area and date to the early 1970s. The Project site has hard, compacted soils that are not suitable for burrowing or for supporting the species' prey base or for denning. While the species may occasionally move though the site as it travels along the river, the site is unsuited to providing food and shelter for the species. Therefore, the species is not expected to occur on site except, potentially, for relatively uncommon, brief movements through the site. Minimization measures are included to address harm to the species should it move through the site during Project construction.

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

/b/ Likelihood of Species Occurrence Key:
Occupied (O) – The species is present on the site.
Unlikely to occur (U) – The species is unlikely to occur on site.
Potential to occur (P) - The species has the potential to occur on site.

/c/ Under review (last petition – 2015)

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

CDFW-SSC: CA Dpt. Fish and Wildlife Species of Special Concern

S1: Critically Imperiled. Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.

S2: Imperiled. Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

CDF-S: California Dpt. of Forestry - Sensitive

United States

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

FE: Federal endangered species act listed endangered

FT: Federal endangered species act listed threatened

FPE: Federal endangered species act petitioned for listing endangered

FPT: Federal endangered species act candidate for listing threatened

BLM-S: U.S. Bureau of Land Management Sensitive Species

USFWS BCC: United States Fish and Wildlife Service Bird of Conservation Concern

USFS-S: United States Forest Service Sensitive Species

MBTA: Migratory Bird Treaty Act

BGEPA: Bald and Golden Eagle Protection Act

NMFS-SSC: National Marine Fisheries Service Species of Special Concern

Other Organizations

Western Bat Working Group High Priority (WBWG-H)

Western Bat Working Group Medium Priority (WBWG-M)

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

International Union for Conservation of Nature-(IUCN)

Vulnerable (IUCN-V)

Near Threatened (IUCN-NT)

Endangered (IUCN-E)

California Native Plant Society (CNPS) - California Rare Plant Ranking System

List 1B: Rare, threatened, or endangered in California and elsewhere

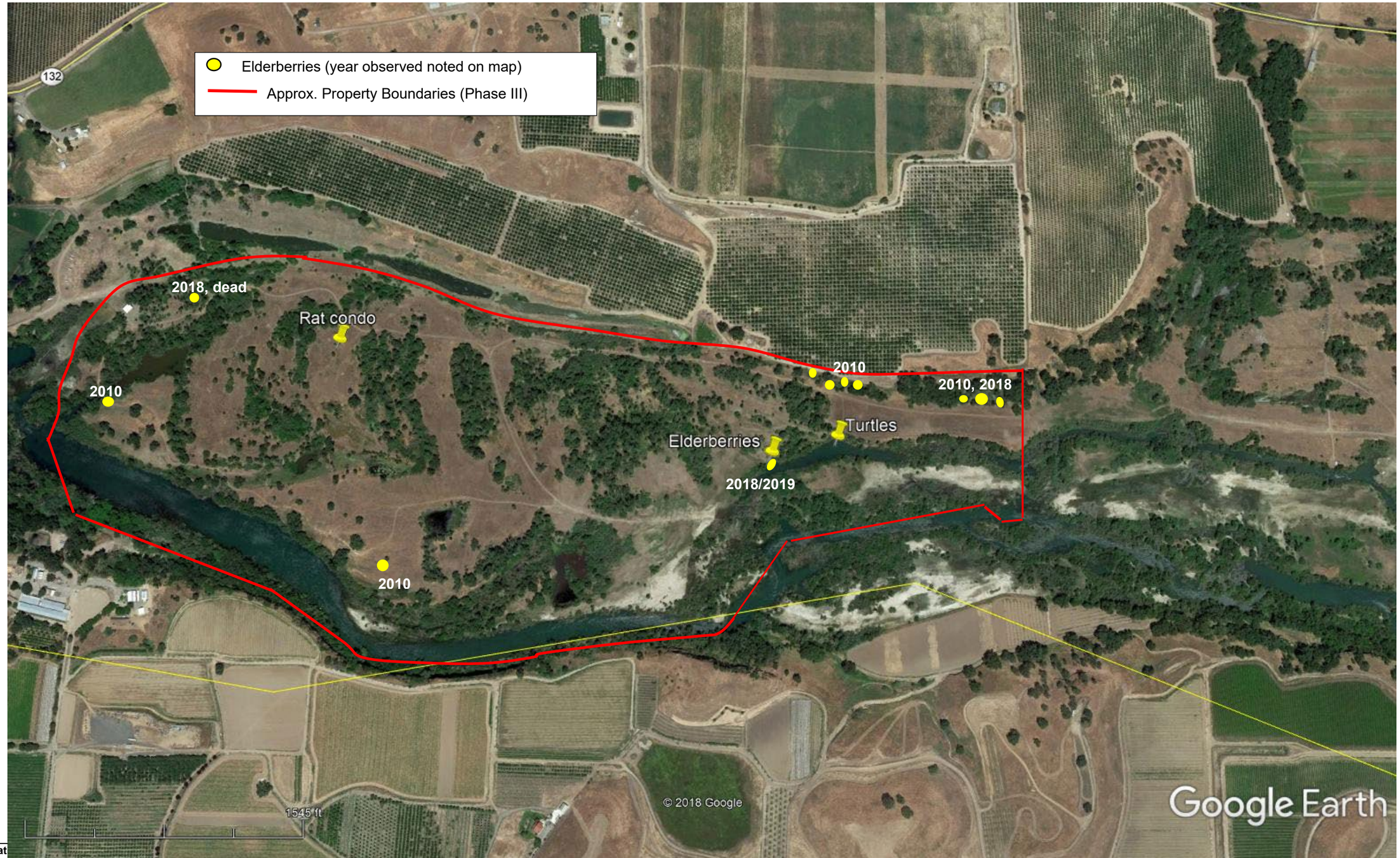
1B.1 Seriously endangered in California

1B.2 Fairly endangered in California

1B.3 Not very endangered in California

4.2 Of limited distribution or infrequent throughout a broader area in California, status should be monitored, a watch list

Figure 7: Elderberry, Woodrat Den, and Turtle Locations



A. Listed/Candidate Species Unlikely to be Present

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

Succulent owl's clover (*Castilleja campestris* var. *succulenta*)

Owl's clover is a federally listed threatened and California listed endangered species. The species is a CNPS List 1B species. It occurs in vernal pools. CNDDB records for the species occur within 4 miles of the project site. The site lacks vernal pools (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.

Hoover's spurge (*Euphorbia hooveri*)

Hoover's spurge is a federally listed threatened species. The Project is located within an area designated as critical habitat for the species. The species is a CNPS List 1B species. The species occurs in association with vernal pools. CNDDB records for the species occur within 2 miles of the project site in association with vernal pools. The Project site lacks vernal pools (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.

Colusa grass (*Neostapfia colusana*)

Colusa grass is federally listed as threatened. The Project is located within an area designated as critical habitat for the species. The species also is a California listed endangered species. The species is a CNPS List 1B species. The species occurs in vernal pools. Several CNDDB records for the species occur within 2 miles of the project site--all in association with vernal pools. The site lacks vernal pools (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.

Hairy Orcutt grass (*Orcuttia pilosa*)

Hairy Orcutt grass is federally listed as endangered. The Project is located within an area designated as critical habitat for the species. The species also is a California listed endangered species. The species is a CNPS List 1B species. The species occurs in vernal pools. CNDDB records for the species occur within 2 miles of the project site. The database notes that one of the nearest sites appears to have been altered by agriculture and the populations are extirpated. The Project site lacks vernal pools (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.

Hartweg's golden sunburst (*Pseudobahia bahiifolia*)

The species is a federally listed endangered and a California listed endangered species. The species is a CNPS List 1B species. It occurs in Valley and foothill grassland and cismontane woodlands generally in clay soils predominantly on the northern slopes of knolls, but also along shady creeks or near vernal pools. CNDDB records for the species occur over 3 miles from the Project site on Amador loam rocky thin-soils on north, west and east-facing slopes in annual grasslands on a small hill along canyon, banks and terraces of a creek with scattered valley oak riparian woodland at the southern end of the occurrence site. The Project site lacks Amador loam soils in combination with grasslands and shady creeks/vernal pools. The species was not identified during surveys. Therefore, the species is unlikely to occur.

Greene's tuctoria (*Tuctoria greenei*)

The species is a federally listed endangered. The Project is located within an area designated as critical habitat for the species. The species is also a California listed rare and a CNPS List 1B species. CNDDB records for the species occur within 2 miles of the project site in dry pools with clay soil. The Project site lacks vernal pools (unsuitable habitat). The species was not identified during surveys. Therefore, the species is unlikely to occur.

Conservancy Fairy shrimp (*Branchinecta conservatio*)
The species is a federally listed endangered species. It is endemic to the grasslands of the northern two-thirds of the Central Valley and is found in large, turbid pools. It inhabits astatic pools located in swales formed by old, braided alluvium filled by winter/spring rains that last until June. The nearest CNDDB record is more than 15 miles from the project site. Site lacks vernal pools and pools that remain filled until June. Suitable habitat for this species does not exist on site. Therefore, the species is unlikely to occur.

Vernal pool fairy shrimp (*Branchinecta lynchi*)
The species is a federally listed threatened species. The Project is located within an area designated as critical habitat for the species. It occurs on Valley and foothill grasslands in association with vernal pools and wetlands. It also inhabits small, clear-water sandstone-depression pools and grassed swale, earth slumps, or basalt-flow depression pools. The nearest CNDDB record is more than 5 miles from the project site. The site lacks vernal pools, vernal wetlands and has none of the sandstone depression pools, grassed swales or basalt flow pools that provide suitable habitat for the species. Therefore, the species is unlikely to occur.

Vernal pool tadpole shrimp (*Lepidurus packardi*)
The species is a federally listed endangered species. It occurs in vernal pools and swales containing clear to highly turbid water and pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid. The nearest CNDDB occurrence record is more than 4 miles southwest of the project site in seasonal wetlands and vernal pools. The BSA lacks grasslands and vernal pools/swales suitable for the species. Therefore, it is unlikely to occur.

California tiger salamander (*Abystoma californiense*) - CTS
CTS is state and federally listed as threatened and is on the CDFW watch list. The CTS is most commonly found in Cismontane woodland in association with meadows and seeps, riparian woodlands, Valley and foothill grasslands, and vernal pool wetlands. The species requires underground refuges, especially ground squirrel burrows in association with vernal pools or other seasonal water sources for breeding. There are two CNDDB records for the species within two miles of the project site. One site was converted to agriculture and the species is assumed extirpated. The other site is upstream along the Tuolumne River in natural habitat. The BSA, unlike the nearest CNDDB record site, lacks the natural habitat and underground refuges found upstream. The Project is largely hard-packed cobbled "pavement" which discourages burrows. CTS were not identified during site surveys. Therefore, they are considered unlikely to occur. However, improvements in conjunction with the proposed project could provide potential future habitat for the species.

California red-legged frog (*Rana draytonii*)
The species is federally listed as threatened and is a California Department of Fish and Wildlife Species of Special Concern. The species prefers quiet pools of streams, marshes, and occasionally ponds; lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emerging riparian vegetation. 11-20 weeks of permanent water and access to estivation habitat are necessary. The nearest CNDDB records for the species are more than 15 miles from the Project site. Flows in the Tuolumne River are considered too swift to allow for successful egg-laying. The species has not been detected in relatively stagnant backwaters. The species was not detected during surveys. Based

on the lack of records for the species, the lack of appropriate habitat, the species is not expected to occur within the BSA.

Giant garter snake (*Thamnophis gigas*) - GGS
GGS is listed as federally threatened. The snake is primarily associated with marshes and sloughs, less with slow-moving creeks, and absent from larger rivers. It is active from mid-March until October. The nearest CNDDB record for this species is more than 20 miles outside the BSA. There are no marshes or sloughs within the BSA. The Tuolumne River is too swift to support the species. Therefore, the species is not expected to occur in the BSA due to lack of suitable habitat.

Tricolored blackbird (*Agelaius tricolor)*
The tricolored blackbird is a proposed California endangered species and petitioned federal endangered species. It is a California Department of Fish and Wildlife Species of Special Concern, U.S. bureau of Land Management Sensitive Species and USFWS Bird Species of Conservation Concern. The species is a colonial, requires open water, protected nesting substrate and foraging area with insect prey within a few kilometers of the colony. The nearest CNDDB records for the species occur within 2 miles of the project site. One of two recorded sites is believed extirpated. The Project site lacks necessary nesting substrate in combination with foraging habitat. The species was not located during surveys. The species is not expected to occur on site.

B. Listed/Candidate and other Special Status Species with the Potential to be (or Are) Present

Insects

Valley elderberry longhorn beetle (Desmocerus californicus dimorphus) - VELB
VELB is a federally-listed threatened insect. The species relies on elderberry shrubs located below 500 feet in elevation. The species prefers to lay eggs in elderberries 2-8 inches in diameter with some preference shown for "stressed" elderberries. The nearest CNDDB record for the species is more than 12 miles downstream of the Project site and identifies exit holes. Elderberry shrubs are located within the Project boundaries (**Figure 7**). Some elderberries are located streamside surrounded by Himalayan blackberries presenting and impenetrable barrier to examining the stems for exist holes. Where shrubs could not be accessed, binoculars were used to survey; however, given the limited ability to examine the stems closely, it is assumed that the shrubs have the potential to support VELB. Mitigation to avoid VELB is included herein.

Although direct impacts to the shrubs are not anticipated, given that the elderberry provides potential habitat for VELB, construction in the vicinity could result in a potentially significant adverse impact. The following mitigation is proposed to avoid that impact:

Minimization Measure BIO-1: Environmental Awareness Training
Construction bid packages and contractual requirements shall include a requirement for tail-gate training by the project's designated qualified biologist and cultural resource professionals. All contractors involved in site development and environmental specialists will attend a mandatory Environmental Awareness Training prior to any site disturbances. The program will address proper implementation of minimization and avoidance measures contained herein including, but not limited to:

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

Mitigation Monitoring BIO-1: The required mitigation measure will be implemented throughout project construction. The Project Biologist (or Project Archaeologist) shall have the authority to stop work or remove any construction worker on site that has not completed training. The measure is the responsibility of the construction contractor.

Mitigation Measure BIO-2 Valley elderberry longhorn beetle Protection
The following applies to elderberry shrubs located within 100 feet of active construction areas.

1. All ground disturbance within 100 feet of the driplines of elderberry shrubs shall occur outside the flight period for VELB (March 15th to June 15th).

    a. Prior to ground disturbance, erect brightly colored temporary fencing (e.g., safety fencing): Along the boundary of the buffer area designated for elderberry shrub protection (20 feet from the dripline of the shrub)
    b. Temporary fencing shall be maintained throughout project construction and restoration activities.

2. Throughout construction activities:

    a. No dumping of trash or other material may occur within 20 feet of elderberry shrubs. Any trash or other foreign material found deposited within this buffer area shall be removed within 10 working days of discovery.
    b. No insecticides, no herbicides, no fertilizers or other chemicals shall be used that might harm the beetle or its host plant shall be used within 100 feet of any elderberry bush.

Mitigation Measure BIO-2 shall not apply if VELB is delisted pursuant to the federal endangered species act prior to (or during) project construction.

Mitigation Monitoring BIO-2: Temporary safety fencing (i.e., environmentally sensitive area fencing) shall be installed prior to ground disturbance and be verified by the Project Biologist. The required fencing and mitigation measure provisions will be implemented and maintained throughout Project construction. The measure is the responsibility of the construction contractor with input from the Project Biologist, if necessary.

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

Fish

Delta smelt *(Hypomesus transpacificus)*

Delta smelt are federally-listed as threatened and state-listed endangered. They are found in the Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. They are seldom found at salinities > 10 ppt. and are most often found at salinities < 2ppt. - No CNDDB records for the species are identified in the Lower Tuolumne River. However, due to their existence within the Sacramento-San Joaquin Delta system, the species is considered to have a low potential to be present in the BSA, a tributary of the Sacramento-San Joaquin Delta system. The species has been found occasionally in the Stanislaus River to the north. Mitigation measures to avoid the species are included herein.

Hardhead (*Mylopharodon conocephalus*)

Hardheads are not listed, but are a CDFW Species of Special Concern and USFS Sensitive species. They occur at low to mid-elevation streams in the Sacramento-San Joaquin Drainage and prefer clear deep pools with sand-gravel-boulder bottoms and slow water velocity. They are not found where exotic centrarchids predominate. A CNDDB record for the species occurs within the Tuolumne River within the BSA. Suitable habitat for this species exists in the Tuolumne River. Mitigation measures to avoid the species are included herein.

Steelhead – Central Valley DPS [*Oncorhynchus mykiss iridueus* pop. 1(11)]

This Distinct Population Segment (DPS) is federally listed as threatened. Populations occur in the Sacramento and San Joaquin rivers and their tributaries including the lower Tuolumne River from its mouth in the San Joaquin River to La Grange Dam (River Mile 52). Suitable habitat for this species exists in the Tuolumne River. The CNDDB maps all of the Lower Tuolumne River as habitat for this species. The species has been identified within the Project boundaries. The purpose of the proposed Project is to enhance salmonid habitat. Mitigation measures to avoid harm to those species already present is included herein.

Avoidance and Minimization Measure BIO-1: Environmental Awareness Training

Avoidance and Minimization Measure BIO-3: Work Window for Fisheries

Project activities involving in-stream work will occur outside the critical spawning period for steelhead and salmon (e.g., June through September).

Mitigation Monitoring BIO-3: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction contractor.

Avoidance and Minimization Measure BIO-4: Install Barrier /Silt Fencing to Protect Water Quality

Prior to implementing staging, construction, or ground disturbing activities:

Install temporary silt fencing, fiber rolls, or equivalent erosion and sediment control devices as necessary to protect water quality. Silt fencing or other materials, as required, will be installed consistent with the applicable water quality requirements specified in the Project's Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP). Fencing or other erosion control materials or devices shall be shown on the final construction documents. These areas will be monitored by the project manager throughout construction.

Mitigation Monitoring BIO-4: The required mitigation measure will be implemented prior to ground disturbance and maintained throughout project construction. The measure is the responsibility of the construction contractor.

Avoidance and Minimization Measure BIO-5: Erosion Control Plan/Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)

- The Contractor shall prepare an Erosion Control Plan for implementation for any construction to take place between October 15 and May 15 of any year. In the absence of such an approved plan, all construction shall cease on or before October 15, except that necessary to implement erosion control measures.

- Submit to the State Water Resources Control Board Storm Water Permitting Unit, a Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit - California's National Pollution Discharge Elimination System (NPDES) general permit for construction related storm water discharges for the disturbance of one acre or more. Disturbances of less than one acre may also require an NOI for coverage under the NPDES General Permit for construction-related storm water discharge and the State Water Resources Control Board Permitting Unit shall be contacted for determination of permit requirements. Commercial and Industrial developments may require an NOI even if less than one acre is to be disturbed. Obtain coverage or an exemption from these requirements. [Federal Water Pollution Control Act, Section 401, California Clean Water Act]. The permit may include preparation of a Stormwater Pollution Prevention Plan (SWPPP).

Mitigation Monitoring BIO-5: The required mitigation measure will be incorporated into the project bid package and contract. Erosion control plan to be completed prior to October 15th. NOI/NPDES to be secured prior to ground disturbance. Implemented and maintained throughout project construction. The measure is the responsibility of the construction contractor.

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

Reptiles

Western pond turtle *(Actinemys marmorata) – WPT*

The WPT has been petitioned for listing under the federal endangered species act as threatened or endangered. It is a U.S. Bureau of Land Management sensitive species, a USFS sensitive species, and a CDFW Species of special concern. The species is an aquatic turtle of ponds, marshes, rivers, streams and irrigated ditches usually with aquatic vegetation below 6,000 feet in elevation. The species requires basking sites and suitable sandy banks or

grassy open fields upland habitat for egg-laying. Numerous Western pond turtles were observed on the Project site. Mitigation measures are included to minimize and avoid harm to the species. (**Figure 7**)

Mitigation Measure BIO-1: Environmental Awareness Training

Mitigation Measure BIO-6: Biological Monitor – Turtles
Throughout Project construction, a qualified biologist shall be present on-site to monitor all Project activities with the potential to harm WPTs. The Project Biologist may be absent only when, in the opinion of the Project Biologist, activities to be conducted during the biologists' absence are not expected to impact WPTs.

Mitigation Monitoring BIO-6: The required mitigation measure will be throughout Project activities involving ground disturbances (including staging). The measure is the responsibility of the construction contractor and project biologist.

Mitigation Measure BIO-7: Preconstruction Survey/Relocation for Western Pond Turtles
Within 48 hours of commencing site disturbances, a qualified biologist shall survey for and, if present, relocate any non-nesting western pond turtles from construction areas or other areas where turtle disturbance may occur. If found on site in locations where harm to the turtle may occur from project activities, the turtle first will be given the opportunity to leave the site on its own if the turtle actively is in the process of attempting to leave the site and is likely to successfully do so within the hour in the opinion of the qualified biologist. Otherwise, the qualified biologist will relocate the turtle outside the work area. [California Code of Regulations, Title 14, Division 1, Chapter 5, Subsection 40(b)][1].

Mitigation Monitoring BIO-7: The required mitigation measure will be implemented prior to ground disturbances (including staging). The measure is the responsibility of the construction contractor and project biologist.

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

Birds

Swainson's hawk (Buteo swainsoni)

The Swainson's hawk is a California threatened species, U.S. Bureau of Land Management Sensitive Species and USFWS Bird Species of Conservation Concern. The species breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. It requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. A 1919 CNDDB record for the species occurs within 3 miles of the project site. The site provides suitable habitat for the species, although adjacent land provides marginal foraging habitat due to the presence of

[1] Pursuant to California Fish and Game Code Title 14, Subsection 40(b) the capture, temporary collection, or temporary possession of native amphibians done to avoid mortality or injury in connection with lawful activities is permitted and such live capture and release of native amphibians done to avoid death or injury may occur with the permission of the CDFW. Because WPTs are not listed species pursuant to the state or federal endangered species act, neither an incidental take permit nor consultation beyond securing permission from CDFW to capture and release the individuals, is required.

orchard-type agriculture. The species was identified on the Project site but was not displaying nesting behavior. Preconstruction surveys will ensure that the species is neither nesting nor rearing young in proximity to the Project site during construction.

Bald eagle (*Haliaeetus leucocephalus*)
The species is a state-listed endangered species and is protected pursuant to the federal Bald and Golden Eagle Protection Act. It is also a US Bureau of Land Management sensitive species, a California Department of Forestry sensitive species, a CDFW fully protected species, a USFS sensitive species and a USFWS bird species of conservation concern. The species inhabits lake margin, and rivers for both nesting and wintering. Most nests are within 1 mile of water. The raptor nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Bald eagles roost communally in winter. The CNDDB records site records in February (with juveniles) and January (adult). One record occurs within 2 miles of the Project site. Bald eagles were observed twice within the Project boundaries. Once roosting along the river bank (February 1, 2019) and once soaring above the site (June 2018). Preconstruction surveys will ensure that the species is neither nesting nor rearing young in proximity to the Project site during construction.

Golden eagle *(Aquila chrysaetos)*
The species is protected pursuant to the federal Bald and Golden Eagle Protection Act. It is also a US Bureau of Land Management sensitive species, a California Department of Forestry sensitive species, a CDFW fully protected species, a CDFW watch list species and a USFWS bird species of conservation concern. The species is an uncommon permanent resident and migrant throughout California, except in the center of the Central Valley. Habitat typically includes rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas. The nearest CNDDB record for the species occurs more than 30 miles from the Project site. Off-site cliffs adjacent to the Project site could provide nesting habitat; however, development of orchards in proximity to the cliffs likely do not provide ample foraging habitat. The species was not identified during surveys. The species is not expected to occur on site other than as an occasional (temporary) visitor. Preconstruction surveys will ensure that the species is not present on the Project site prior to commencing construction

Least Bell's vireo (*Vireo pusillus*)
The species is state and federally listed as endangered. It is a Summer resident of Southern California in low riparian in the vicinity of water or in dry river bottoms below 2000 feet. It nests along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis*, or mesquite. The species prefers riparian forest, riparian scrub, and riparian woodland. A 1919 CNDDB record for the species occurs within 2 miles of the project site. Other records occur further south towards the Merced River. Records are all from May. The species was not identified during surveys; however, given the presence of riparian forest on site, the potential exists for the species to occur. Preconstruction surveys will ensure that the species is neither nesting nor rearing young on site prior to commencing construction.

Oak titmouse (*Baeolophus inornatus)*
The species is a USFWS bird species of conservation concern. It inhabits oak woodlands and is a cavity nester. No CNDDB records for the species occur within 10 miles. The site provides suitable nesting habitat. The species was identified on the Project site. Preconstruction surveys will ensure that the species is neither nesting nor rearing young in proximity to construction prior to commencing construction.

Song sparrow (*Melospiza melodia*)
The species is a USFWS bird species of conservation concern and a CDFW species of special concern. It is a common resident of most of California. It prefers riparian, fresh or saline emergent wetland, and wet meadow habitats. It breeds in riparian thickets of willows, other shrubs, vines, tall herbs, and in fresh or saline emergent vegetation. It winters in much of Northern California and may be found far from water, in open habitats with thickets of shrubs, or tall herbs. The species usually avoids densely wooded habitats, except along forest edges. The nearest CNDDB record occurs more than 30 miles from the Project Site in the early 1900s along the Tuolumne River. The species is referred to as the "Modesto population." A song sparrow was identified during surveys on the site. Preconstruction surveys will ensure that the species is neither nesting nor rearing young in proximity to construction prior to commencing construction.

Yellow-billed magpie (*Pica nuttallii*)
The species is a USFWS bird species of conservation concern. It is a common, yearlong resident of the Central Valley, and inhabits valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, orchard vineyard, cropland, pasture, and urban habitats. There are no CNDDB records for this species. The species was identified during surveys. Preconstruction surveys will ensure that the species is neither nesting nor rearing young in proximity to construction prior to commencing construction.

Nuttall's woodpecker (*Picoides nuttallii*)
The species is a USFWS bird species of conservation concern. It is a common, permanent resident of low-elevation riparian deciduous and oak habitats and in the lower portions of the Sierra Nevada. There are no CNDDB records for this species. The species was identified during surveys. Preconstruction surveys will ensure that the species is neither nesting nor rearing young in proximity to construction prior to commencing construction.

In addition to the special status bird species noted above, other bird species protected pursuant to the Migratory Bird Treaty Act (MBTA) could or do occur in the BSA (See **Attachment C** for species identified on site during surveys). To minimize or avoid potential disturbances to nesting and/or breeding bird species as described above, the following is proposed:

Avoidance and Minimization Measure BIO-1: Environmental Awareness Training

Avoidance and Minimization Measure BIO-8: Preconstruction Surveys Birds
Prior to construction occurring between February 1st and August 30th (e.g., staging, excavation, ground disturbance, or vegetation removal) a preconstruction survey for nesting birds will be conducted by a qualified biologist in accordance with the CDFW guidelines and a no-disturbance buffer will be established, if necessary.

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

If an active nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest estimated. No additional measures need be

implemented if active nests are more than the following distances from the nearest work site: (a) 300± feet for raptors; or (b) 75± feet for other non-special-status bird species. Disturbance of active nests shall be avoided to the extent possible until it is determined that nesting is complete, and the young have fledged. For species protected under the California Fish and Game Code (CFGC), if active nests are closer than those distances to the nearest work site and there is the potential for bird disturbance, CDFW will be contacted for approval to work within 300± feet of raptors, or 75± feet of other non-special-status bird species.

Mitigation Monitoring BIO-8: The required mitigation measure will be incorporated into the project bid package and contract. Surveys will occur within 15 days of commencing construction that occurs between February 1st and August 30th. The measure is the responsibility of the construction contractor and project biologist.

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

Mammals

San Joaquin kit fox (*Vulpes macrotis mutica*) - SJKF

The SJKF is a federally listed endangered and California listed threatened species. Annual grasslands or grassy open stages with scattered shrubby vegetation. The species requires loose-textured sandy soils for burrowing and suitable prey base. The nearest CNDDB records for the species are approximately 5 miles from the Project area and date to the early 1970s. The Project site has hard, compacted soils that are not suitable for burrowing or for supporting the species' prey base. While the species may occasionally move though the site as it travels along the river, the site is unsuited to providing food and shelter for the species. Therefore, the species is not expected to occur on site except, potentially, for relatively uncommon movements through the site. Minimization measures are included to address harm to the species should it move through the site during Project construction.

Avoidance and Minimization Measure BIO-1: Environmental Awareness Training

Avoidance and Minimization Measure BIO-10: Hours of Construction.
Project construction shall be limited to 7:00 a.m. to 7:00 p.m. unless an emergency situation exists.

Mitigation Monitoring BIO-10: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.

Avoidance and Minimization Measure BIO-11: Avoid Inadvertent Animal Trapping During Construction
To avoid inadvertently trapping special status or common animal species during construction, all excavated steep-walled holes or trenches more than two feet deep shall be covered at the end of each working day with plywood or similar material, or provided with one or more escape ramps constructed of earth fill or wooden planks, or equivalent, at each end of the trench. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a tapped animal is discovered, the contractor shall place an escape ramp or other appropriate structure to allow the animal to escape. Alternatively, the contractor shall contact the project biologist or California Department of Fish and Wildlife for assistance. Similarly, stored pipes or other materials providing

potential cover for animals will be inspected prior to installation or use to ensure that they are unoccupied.

Mitigation Monitoring BIO-11: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction contractor.

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

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

c) Have a substantial adverse effect on 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) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant with Mitigation Incorporated

Natural communities on site are identified in **Figure 6**.

Oak Woodlands (including Valley oak woodlands)

Of the vegetative communities mapped on site, the following is identified as sensitive natural community:

RWF-2: Southwestern North American riparian evergreen & deciduous woodland - *Quercus lobata*)

This habitat type was referred to under the California Wildlife Habitat Relationship System as Valley foothill riparian (VRI). Riparian habitats with Valley oaks (*Quercus lobata*) are considered a sensitive natural community.

In addition, pursuant to California Public Resources Code Section 21083.4 (Counties; Conversion of Oak Woodlands), the conversion of oak woodlands is considered a significant adverse impact pursuant to CEQA. The following vegetation communities included in the Project boundaries include Valley oaks and blue oaks (*Quercus douglasii*) that are subject to PRC 21083.4:

- RWF-1: SW N. American riparian evergreen & deciduous woodland – *Populus fremontii*
- RWF-2: SW N. American riparian evergreen & deciduous woodland -*Quercus lobata*

Finally, pursuant to the Stanislaus County General Plan 2015, the following policies address sensitive habitats including oak woodlands:

- Conservation/Open Space Policy Three. Areas of sensitive wildlife habitat and plant life (e.g., vernal pools, riparian habitats, flyways and other waterfowl habitats, etc.)

including those habitats and plants species listed in the General Plan Support Document or by state and federal agencies shall be protected from development and/or disturbance.

- Conservation/Open Space Policy Four. Protect and enhance oak woodlands and other native hardwood habitat.

Specific mechanisms for implementing the preceding policies are not found in the County's code. Therefore, the proposed Project will comply with generally accepted practices for achieving the policies stated. Stanislaus County was notified of the proposed project and responded with no objections.

Project design includes avoiding most stands of native oaks on site. However, individual trees 5" or greater in diameter at breast height may be removed—a potentially significant adverse impact pursuant to CEQA. Mitigation to reduce this impact to a level of less than significant is proposed as follows:

Mitigation Measure BIO 12: Tree Replanting
Native oak trees 5" or greater in diameter at breast height damaged or removed in conjunction with Project activities shall be replanted on the Project site as follows:

- Blue oaks: 2 blue oak trees planted for every blue oak tree removed or damaged
- Valley oaks: 6 Valley oaks planted for every valley oak tree removed or damaged

A survival rate of at least 75% after five years is required for oak trees planted in conjunction with this measure.

Mitigation Monitoring BIO-12: Planting shall occur in the first fall of the year following project completion just prior to rains commencing. The measure is the responsibility of the Project Proponent.

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

Wetlands and Other Waters
In addition to oak woodlands, the site includes the following sensitive natural communities that are subject to Section 404 of the federal Clean Water Act and may be impacted by the project:

Wetlands and other waters of the United States

The project may result in removal, fill, or hydrological interruption subject to Section 404 of the federal Clean Water Act—a potentially significant adverse impact. The following mitigation measures are required:

Avoidance and Minimization Measure BIO-13: Wetlands and Other Waters
A Section 401/404 Permit(s) shall be acquired prior to commencing Project construction. The Project Proponents shall implement all identified mitigation measures contained in the permits as necessary to achieve no net loss of wetlands.

Mitigation Monitoring BIO-13: Mitigation shall occur as specified in the study. The measure is the responsibility of the Project Proponent.

Avoidance and Minimization Measure BIO-4: Install Barrier /Silt Fencing to Protect Water Quality

Avoidance and Minimization Measure BIO-5: Erosion Control Plan/Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)

Proper implementation of the preceding is expected to minimize the potential impacts to wetlands and other waters to a level of less than significant.

General:

Appendix D lists non-native weed species that occur throughout the Project site. To ensure that additional non-native plant species are not introduced during project construction, the following measure is included:

Avoidance and Minimization Measure BIO-13: Minimize the Spread of Invasive Plant Species

Throughout project construction:

- All hay, straw, hay bales, straw bales, seed, mulch or other material used for erosion control on the project site shall be free of noxious weed[2] seeds and propagules (Food and Agriculture Code Sections 6305, 6341 and 6461).

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

All material brought to the site, including rock, gravel, road base, sand, and top soil, shall be free of noxious weeds[3] and propagules. (Food and Agriculture Code Sections 6305, 6341 and 6461).

Mitigation Monitoring BIO-13: The required mitigation measure will be incorporated into the project bid package and contract and implemented throughout project construction. The measure is the responsibility of the construction contractor.

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

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

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

[3] Ibid.

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

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

2.5 CULTURAL RESOURCES and TRIBAL CULTURAL RESOURCES

V. CULTURAL RESOURCES. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

V. TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) 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 ResourcesCode section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

2.5.1 Background and Setting

An archaeological study was conducted by Davis-King & Associates (Davis-King, 2004) and previously incorporated by reference.

The 2004 study included consultation with local Native American tribes, local historical societies, pre-field archival research at the Central California Information Center at California State University, Stanislaus. Resources were evaluated in accordance with Section 15064.5 of the California Environmental Quality Act, the California Register of

Historical Resources (CRHR), the National Historic Preservation Act (16 USC 470) and 36Code of Federal Regulations (CFR) 800.4 (a) (d) (1).

In 2018, Native American consultations were again initiated in compliance with Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) which establishes a formal consultation process for California tribes as part of CEQA. Under AB 52, tribes requesting formal consultation from the Lead Agency are notified of the project prior to the preparing the CEQA document.

In addition to the preceding, an updated records search at the CCIC was performed by Davis-King associates.

2.5.2 Analysis

a) Cause a substantial adverse change in the significance of a historical resource as defined in the Government Code, State CEQA Guidelines Section 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 with Mitigation Incorporated.
Based on the 2004 study and 2018 updates, the Cultural Resource Study concludes:

…that a river floodplain was not favored for important pre-historic sites and that decades of surface disturbance on the site, as well as the seasonal flooding, have left little opportunity for pre-historic or historic era artifacts to remain on the site. The study further states that the project site was dredged, mined and otherwise disturbed during the past 100 years and no significant cultural resources (historic or pre-historic) were identified on the surface of the project site. Only isolated dredger scrap metal was found on the project site. Prior mining activities were done to extract gold, cobbles and gravel from the project site. Therefore, potential impacts to historic resources are not anticipated.

Given the proximity of the site to the river and acorn crops, the potential for subsurface pre-historic resources, although slight, remains. For example, implementation of future project activity may entail earth disturbing construction which could expose buried, subsurface cultural resources—a potentially significant adverse impact. To minimize this potential impact, the following mitigation measures are proposed:

Avoidance and Minimization Measure BIO-1/CULT-1: Environmental Awareness Training

Mitigation Measure CULT-2: Unanticipated Cultural Resource Discoveries
If a cultural resource is discovered during construction activities, the construction contractor shall comply with the following provisions:

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

B. When the cultural resource is located outside the area of disturbance, the project's designated qualified cultural resource professional shall be allowed to photodocument and record the resource and construction activities may continue during this process.

The area of disturbance is defined to include grading and vegetation removal areas and/or access roads or processing areas plus 100 feet.

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

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

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

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

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

Mitigation Monitoring CULT-2: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the Project proponent/Contractor with input from the project's designated qualified cultural resource professional, if necessary.

No impact is expected to human remains from the project as proposed, based on *Davis-King, 2004*, which states that the river floodplain is not a typical burial site for Native Americans. Based on these findings, no adverse impacts are anticipated to any human remains; however, the following is included to address discovery of unanticipated resources:

Mitigation Measure CULT-3: Human Remains
If human remains, burial, cremation of other mortuary feature are uncovered during construction activities; upon discovery, secure the location, do not touch or remove remains and associated artifacts; do not remove associated spoils or go through them; document the location and keep notes of activity and correspondence. All work within 100 feet of the discovery shall stop until the County Coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission to obtain the Most Likely Descendent (MLD) and follow state law (PRC 5097.9 et seq. and Health and Safety Code 7050.5(c)-7054.1 and 8100 et seq.). No further work or disturbance shall occur within 100 feet until all of the preceding actions, as applicable to the discovery, are implemented and completed. Preserve associated spoils without further disturbance, do not touch or remove remains or associated artifacts, document the location and maintain notes of activity and correspondence. Preservation *in situ* is the preferred treatment of human remains and associated burial artifacts. [Public Resources Code Sections 5097.94, 5097.98 and Health and Safety Code Section 7050.5(c) and Section 15064.5 of the California Code of Regulations implementing the California Public Resources Code, Sections 21000-21177]

Mitigation Monitoring CULT-3: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the Project Proponent/contractor.

Mitigation Measure CULT-4: Project Scope Changes
If the project develops beyond the scope and project description as described herein, further archaeological study and an addendum to this study may be required.

Mitigation Monitoring CULT-4: The required mitigation will be assessed pre-construction during plan reviews and throughout project construction by site visits conducted by cultural resource monitoring. The measure is the responsibility of the Project Proponent/Contractor.

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

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

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

to ensure evaluation and appropriate handling, study, and curation of unanticipated subsurface paleontological discoveries.

Mitigation Measure:

> **Mitigation Measure CULT-5: Paleontological Resources**
> If paleontological resources are encountered during Project construction and no paleontological monitor is present, all ground disturbing activities within 50 feet of the find shall be redirected to other areas until a qualified paleontologist (as determined by the Project's qualified cultural resource professional) can be contacted to evaluate the find and make recommendations. If determined significant pursuant to CEQA and Project activities cannot avoid the paleontological resources, a paleontological evaluation and monitoring plan shall be implemented.
>
> Adverse impacts to significant paleontological resources shall be mitigated, which may include monitoring, data recovery and analysis, a final report, and the curation of all fossil material to a paleontological repository, museum, or academic institution, as appropriate. Upon completion of Project ground-disturbing activities, a report documenting methods, findings, and recommendations shall be prepared and submitted to the paleontological repository.

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

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

e) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public ResourcesCode section 5020.1(k), or
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

Less than Significant with Mitigation Incorporated
Augustine Planning Associates, Inc. initiated coordination with the Native American community on December 21, 2018. On December 21, 2018, a formal request to the California NAHC for a Sacred Lands File search was submitted. The NAHC responded on January 10, 2019 with negative results.

On January 21, 2019, an e-mail describing the project was sent to the Calaveras Band of Mi-Wuk Indians, California Valley Miwok Tribe, California Valley Miwok Tribe (Sheep Ranch Rancheria of MeWuk Indians of CA), North Valley Yokuts Tribe, Southern Sierra Miwuk Nation, Tule River Indian Tribe and Tuolumne Band of Me-Wuk Indians as listed on the Native

American Contact List provided by the Native American Heritage Commission (NAHC). The following tribes were consulted:

Table 4: Native American Consultation

Tribe
California Valley Miwok Tribe
California Valley Miwok Tribe (Sheep Ranch Rancheria of MeWuk Indians of CA)
North Valley Yokuts Tribe
Southern Sierra Miwuk Nation
Tule River Indian Tribe
Calaveras Band of Mi-Wuk Indians
Tuolumne Band of Me-Wuk Indians

The preceding seven Tribes were contacted regarding Tribal Cultural Resources. Two of the Tribes did not respond to letter, email, and voice mail requests. Two of the Tribes requested site visits, but upon seeing the Project site, stated that they do not have concerns about Tribal Resources. Three of the Tribes responded and stated that they did not wish to consult about Tribal Cultural Resources. No additional work with respect to Tribal Cultural Resources is thought to be necessary because no Tribal Cultural Resources have been identified in the Project and no California Native American Tribes traditionally and culturally affiliated with the project area have requested consultation pursuant to Public Resources Code section 21080.3.1. For purposes Cultural Resources, the proposed project will not have a significant effect on the environment.

A summary of the responses received from each Tribe is included in **Attachment D**.

As described in paragraphs b and c, above, decades of surface disturbance as well as seasonal flooding have left little opportunity for pre-historic or historic era artifacts to remain on the site and potential impacts to pre-historic and historic resources are not anticipated.

Given the proximity of the site to the river and acorn crops, the potential for subsurface pre-historic resources, although slight, remains. For example, implementation of future project activity may entail earth disturbing construction which could expose buried, subsurface cultural resources—a potentially significant adverse impact. To minimize this potential impact, the following mitigation measures are proposed:

Mitigation Measure BIO-1/CULT-1: Environmental Awareness Training

Mitigation Measure CULT-2: Unanticipated Cultural Resource Discoveries

Mitigation Measure CULT-3: Human Remains

Mitigation Measure CULT-4: Project Scope Changes

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

2.6 GEOLOGY AND SOILS

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

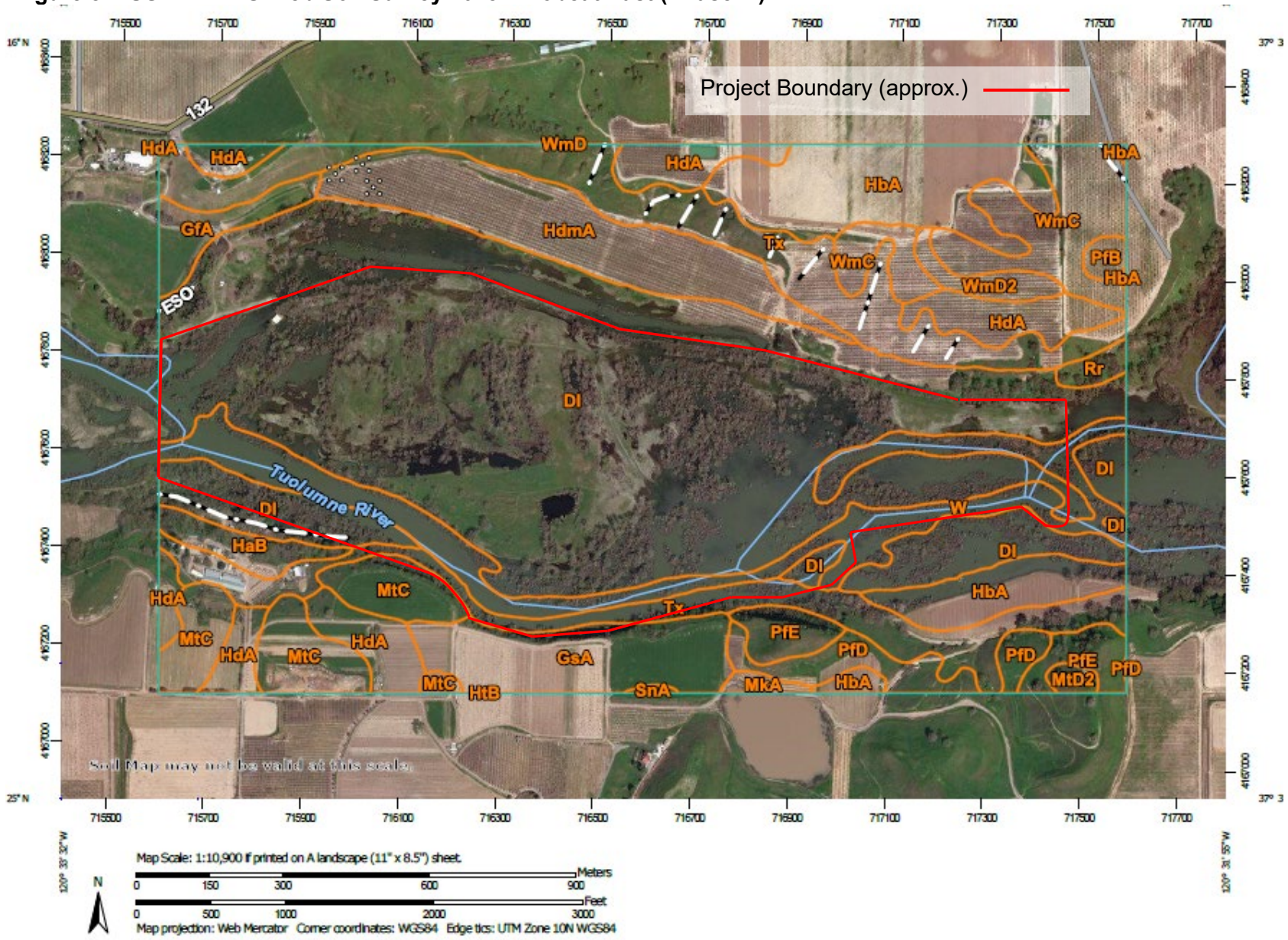
2.6.1 Background and Setting

Two soil types exist within the project area (**Figure 8**):

- Dredge and Mine tailings (DI) - 98%
- Terrace escarpments (Tx) – 2% (located along the south/central project boundary)

The remainder is classified as Water (W) encompassing the open waters of the Tuolumne River.

Figure 8: USDA NRCS Web Soil Survey 2018 – Bobcat East (Phase III)



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2.6.2 Analysis

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

No Impact. The project involves "re-locating" on-site gravels to re-create natural spawning habitat within the Tuolumne River. Therefore, no risk of loss, injury or death related to seismic events or landslides will occur due to the nature of the proposed Project.

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

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

Less than Significant with Mitigation. Due to dredging activities several decades ago, the project site has very little topsoil; therefore, the project has minimal potential for loss of topsoil. Coarse sediments (i.e., sediments between 8 millimeters and 130 millimeters in size) excavated on site and introduced into the Tuolumne River are large enough that they will not erode easily.

However, in conjunction with excavation, stockpiling, screening and sorting, sediment piles and disturbed soils will be created and could erode into the river- a potentially significant adverse impact. To minimize this impact, the following mitigation measure is proposed:

MM GEO-1: Sediment Control
Throughout Project construction:

a. Excavation areas will be limited to areas with slopes of less than a 10 percent gradient.

b. Re-contouring the floodplain after coarse sediment excavation will result in slopes with a 2:1 ratio to ensure slope stability and prevent erosion in those areas where the floodplain will be day-lighted back to the existing slopes.

c. All materials excavated from the project site will be used on the project site. No excavated materials will be transported or sold off the project site.

d. Excavated gravels and cobbles will be cleaned prior to placement in the river. Sediments will be cleaned (wet-washed or dry-screened) prior to placement in the river channel.

e. River water is proposed to be pumped temporarily from the river for the cobble and gravel washing process (dust-control). A sediment pond will be constructed

at the wash site, adjacent to the stockpile area, to control any sediment runoff from the Project site.

Mitigation Monitoring: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the Contractor.

c) Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

d) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. The Project does not include construction of any structures; but rather will "rearrange" on-site gravels. Therefore, no impacts associated with unstable or expansive soils will occur.

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

e) Would the Project 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 Project involves gravel re-introduction for spawning; therefore, no septic tanks are proposed, and no impacts are anticipated.

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

2.7 GREENHOUSE GAS EMISSIONS

VII. GREENHOUSE GAS EMISSIONS. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

2.7.1 Background and Setting

Construction of the Bobcat Flat East (Phase III) project would generate combustion emissions from various sources. During site preparation and construction, GHGs would be emitted from construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. Construction activities would contribute to the total annual GHG emissions in the State.

Neither the SJVAPCD nor the California Air Resources Board (ARB) has issued quantitative thresholds for construction-related GHG emissions for CEQA. To identify the significance of long-term operational GHG emissions impacts, the SJVAPCD specifies the use of Best Performance Standards (BPS) – measures that would reduce GHG emissions. However, the SJVAPCD has not released a set of BPS for short-term construction-related GHG emissions.

In the absence of clear thresholds, guidance, or BPS for construction-related GHG emissions, the project would instead adhere to a suite of best practices extracted from the existing literature to achieve a less than significant impact on GHG emissions.

In 2009, EPA's Sector Strategies Program produced a report analyzing construction-related GHG emissions titled *Potential for Reducing Greenhouse Gas Emissions in the Construction Sector* (U.S. Environmental Protection Agency 2009). The report identifies fossil fuel combustion, primarily from construction equipment, and fuel use from purchased electricity as the two major sources of GHG emissions in the construction industry, with approximately three-quarters of GHG emissions from the construction sector resulting from diesel, gasoline, and natural gas combustion. Therefore, strategies to reduce GHG emissions from construction projects should focus on reducing fossil fuel consumption by construction equipment.

2.7.2 Analysis

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant with Mitigation Incorporated.

Neither the SJVAPCD nor ARB has issued quantified CEQA significance thresholds for construction-related GHG emissions. However, Section 15064.4 of the *State CEQA Guidelines* states:

"A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project."

In response to Section 15064.4 of the *State CEQA Guidelines*, GHG emissions related to the Bobcat Flat East (Phase III) project were quantified.

Consistent with procedures recommended by the SJVAPCD, the emissions due to construction of the Bobcat Flat East (Phase III) project were estimated using the Road Construction Emissions Model (http://www.valleyair.org/ISR/Documents/ISR_faq_rc.pdf). As noted, construction is expected to occur in the period 2021 to 2025. Over time, newer construction equipment meeting more recent stricter emissions standards will replace older equipment that generates relatively higher levels of emissions. As a result, the highest levels of project-related emissions are expected to occur during the first year of construction: 2021. During 2021, the project would generate 211.71 metric tons of carbon dioxide equivalent emissions.

Implementation of the following mitigation measures incorporating Best Performance Standards, would reduce the contribution of GHG emissions during the construction period of the Project to a level of less-than-significant.

Mitigation Measure GHG -1: Authority to Construct/Permit to Operate
Prior to commencing project activities, the Project Proponent/Contractor shall secure an Authority to Construct Permit and Permit to Operate or waiver from the SJVAPCD for equipment used for processing (e.g., pumps in excess of 50 hp; screening equipment), constructing or improving access roads and related activities. The Authority to Construct Permit shall ensure that equipment used is certified for compliance with noise and air quality requirements of the State of California.

Mitigation Monitoring GHG-1: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the Project Proponent/Contractor.

Mitigation Measure GHG-2: Construction Equipment. To the extent feasible, the following measures shall be incorporated into Project design and construction:

- Properly tune and maintain construction equipment and vehicles.
- On-site idling of construction equipment shall be minimized (no more than five minutes maximum).
- Biodiesel shall be used as an alternative fuel diesel for at least 15 percent of the construction vehicles/equipment used if there is a biodiesel station within five miles of the Project site.

Mitigation Monitoring GHG-2: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the Project proponent/construction contractor.

Mitigation Measure GHG-3: Construction Material. To the extent feasible, the following measures shall be incorporated into Project design and construction:

- At least 10 percent of the building material used for the proposed project shall be local.
- At least 50 percent of construction waste or demolition materials shall be recycled.

Mitigation Monitoring GHG-3: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the Project proponent/construction contractor.

Implementation of Mitigation Measure GHG-1 through Mitigation Measure GHG-3 would reduce the contribution of GHG emissions during construction. Impacts would be less than significant with mitigation incorporated.

Operational Emissions

As noted, due to the size, nature and location of the Bobcat Flat East (Phase III) project, the project would not result in a long-term change in system capacity. As a result, the project would not result in a change in long-term operational GHG emission. This impact is considered less than significant, and no mitigation measures are required.

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

No Impact.
Neither the SJVAPCD nor ARB has issued quantified CEQA significance thresholds for construction-related GHG emissions. However, Section 15064.4 of the *State CEQA Guidelines* states:

> "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project."

In response to Section 15064.4 of the *State CEQA Guidelines*, GHG emissions related to the Project were quantified as described in the preceding section. Therefore, the proposed Project is in compliance with applicable plans, policies and regulations adopted for the purposes of reducing emissions of greenhouse gases.

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

2.8 HAZARDS AND HAZARDOUS MATERIALS

VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?	☐	☐	☐	☒
f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) 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?	☐	☐	☐	☒

2.8.1 Background and Setting

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

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

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

U.S. and California Department of Transportation and the California Division of Occupational Safety and Health.

2.8.2 Analysis

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

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

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

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

MM BIO-1: Environmental Awareness Training

MM HAZ-01: Spill Prevention Plan
Prior to site disturbance, prepare a spill response plan to address the appropriate methods for containing accidental spills of toxic materials (e.g., engine oils).

Mitigation Monitoring HAZ-01:
The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.

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?

Less than Significant with Mitigation Incorporated. A review of the California Department of Toxic Substances Control (DTSC) database, EnviroStor, which lists hazardous materials sites complied pursuant to California Government Code Section 65962.5; GeoTracker, which provides information on Leaking Underground Storage Tanks (LUST) and other cleanup sites; and EPA's Toxic Release Inventory (EPCRA TRI) databases identified no hazardous materials sites within 10,000 feet of the Project area. Based on the preceding, no impacts associated with known hazardous material sites are anticipated.

Mercury was used, historically, in some mining operations, including those involving dredgers. While mercury is not routinely detected within the relatively large-sized cobbles such as those found on the Bobcat Flat site; mercury has been detected in some sand pockets within areas which have been dredged (Mesick, 2005); however, a low potential exists and introducing the mercury into the river is a potentially significant adverse impact. To avoid the potential for introducing mercury into the river; the following mitigation is required:

MM HAZ-02: Mercury

Gravel wash water area(s) shall be located more than 500± feet from the river and shall include a sediment basin for all wash water to be collected and percolated through the ground. Note: It is anticipated that some water will be pumped from the river as necessary to implement dust-control measures—therefore, any runoff from gravel cleaning activities will include these provisions. Dry screening for gravel cleaning (without the use of rinse water) will use screens of sufficient size to eliminate sands with the potential to contain mercury.

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

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

The Central Valley Regional Water Control Board has reviewed this proposal and states that mercury monitoring will not be required for this project based on the preceding (Day, 2004).

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 for people residing or working in the Project area?

f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?

No Impact. Oakdale Municipal Airport is located 16± miles northwest of the site and Turlock Airport is located 20± miles southwest of the project site. No aviation safety hazards are expected from the project as proposed, because the site is outside the designated clear zone for departures and approaches to the nearest airports. The Project is not located within the boundaries of an Airport Land Use Plan or private airstrip. Therefore, no impacts are anticipated.

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

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

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

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

h) 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. The project proposes no structures in a rural agricultural area. Since no structures will be occupied by people on the project site, no significant risk from wildland fires will be created. Removal of non-native vegetation in the areas to be excavated will assist in actually reducing any wildland fire hazard on the project site.

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

2.9 HYDROLOGY AND WATER QUALITY

IX. HYDROLOGY AND WATER QUALITY. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

2.9.1 Background and Setting

2.9.2 Analysis

a) Violate any water quality standards or waste discharge requirements?
f) Otherwise substantially degrade water quality?

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

MM BIO-7: Erosion Control & Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)

Also, as previously described, equipment spills and leaks could occur during construction and enter the river--a potentially significant adverse impact on water quality. Similarly, a low potential exists for mercury to wash from the gravels and enter the river. The following mitigation measures are required.

MM BIO-1: Environmental Awareness Training

MM HAZ-01: Spill Prevention Plan

MM HAZ-02: Mercury

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

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?

No Impact. Water for wet-washing gravels will be pumped from the river for dust control in conjunction with dry screening gravels. The wash water will recharge the ground water through a sediment basin to be constructed on the project site. No groundwater will be used for the proposed project. Therefore, based on the nature of the proposed Project, no impact will occur.

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

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Less than Significant with Mitigation Incorporated.
The project will excavate coarse sediments in the floodplain to be used as fill material in the Tuolumne River, thus altering existing drainage patterns which were previously disrupted by historical dredging activities. Actions associated with this process can create silt that may run-off and enter the Tuolumne River—the following mitigation measure are proposed to address these impacts:

MM BIO-7: Erosion Control & Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)

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

Project design does not include the introduction of any impervious surfaces that can speed water runoff from the site and will not decrease the size of the river flood plain to reduce flood storage capacity. Therefore, no off-site impacts from flooding rates or amounts are expected as a result of this Project.

e) *Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

No Impact. No storm water drainage system exists in this rural agricultural area. Drainage occurs in natural channels only. No impermeable surfaces are being introduced that would increase runoff. Therefore, due to the nature and location of the proposed Project, no impacts are anticipated.

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

g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*

i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

j) *Cause inundation by seiche, tsunami, or mudflow?*

No Impact. No housing or structures are proposed in conjunction with the proposed Project, therefore no impacts associated with placing people or structures in a flood hazard area are anticipated.

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel# 06099C0425E (effective date September 26, 2008), identifies the Project

boundaries within the Tuolumne River floodway as a Flood Zone A. Zone A is an area of 100-year flood where the base flood elevations and flood hazard factors have not been determined.

No impacts to people or structures from flood hazards are expected from the project as proposed, because, although the project site is situated downstream from the La Grange Dam and Don Pedro Reservoir dam, no structures are proposed in conjunction with this project. The site is vacant agricultural land. No new levees or dams are proposed by this project. Therefore, the potential to expose people or structures to a significant risk is very low. Caltrans, District 10 office, responded on January 27, 2005 that "the project does not appear to increase traffic on State Route 132 in the project area, nor does it appear to increase stream velocity or scour potential to any state highway structure in the vicinity."

The project as proposed would not increase any risk for inundation by seiche, tsunami, or mudflow. The project site is vacant agricultural land on a relatively flat river floodplain. A major earthquake affecting Don Pedro reservoir on the Tuolumne River could result in a seiche or mudflow generated upstream of the project site and result in substantial flooding downstream. However, the proposed project does not include structures or attract populations which could be threatened by such flooding. The Project does not alter the site's ability to accept floodwaters.

Based on the nature and location of the proposed Project, no impact is anticipated.

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

2.10 LAND USE AND PLANNING

X. LAND USE AND PLANNING. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

2.10.1 Background and Setting

The Project site is vacant land, approximately 190± acres in size, with a Stanislaus County General Plan land use designation of Agricultural (AG) and zoned A-2-40 (General Agriculture, forty acre minimum) under the Stanislaus County Zoning Code.

2.10.2 Analysis

a) Physically divide an established community?

No Impact. The Project is located in a rural agricultural setting. It does not create any new structures or otherwise alter the site's continuing use as open space and agricultural land. Therefore, no impact is anticipated.

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

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 A-2-40 zoning is consistent with the Agricultural General Plan land use designation, pursuant to Chapter 1 (Land Use) of the Stanislaus County General Plan. The Agricultural General Plan land use designation and the A-2-40 zoning allows for agricultural, open space and recreational land uses.

The Project parcels are subject to a Williamson Act or Land Conservation Act contract and have been grazed. The Williamson Act Land Conservation contract provides for open space uses, as well as agricultural uses. The existing open space and agricultural uses will be maintained by the proposed habitat restoration project. Therefore, the project as proposed may be found consistent with the General Plan Land Use Element and with the Williamson Act land Conservation contract, all of which govern land uses on the project site.

Pursuant to the Stanislaus County Code Section 21.20.010 (A-2-40 Purpose):

It is the intent of these district regulations to support and enhance agriculture as the predominant land use in the unincorporated areas of the county. These district regulations are also intended to protect open space lands pursuant to Government Code Section 65910. The procedures contained in this chapter are specifically established to ensure that all land uses are compatible with agriculture and open space, including natural resources management, outdoor recreation and enjoyment of scenic beauty.

The proposed Project will protect open space on the subject parcel and is consistent with agriculture. Therefore, the Project is consistent with the stated purpose of the A-2 zoning district.

Section 21.20.030(C)(2)(p) of the Stanislaus County Code identifies the following use as requiring a Conditional Use Permit in the A-2 district:

p. Commercial excavation of earth, minerals, building materials or removal of oil or gas, together with the necessary apparatus and appurtenances incidental thereto

Because the proposed Project will excavate and sort gravels from mine tailings for use in creating in-stream spawning habitat; no commercial use will occur, and a conditional use permit would not be required.

Pursuant to Section 21.20.060, the A-2-40 zoning district shall require the maintenance of 40-acre minimum-sized parcels. The proposed Project encompasses two parcels: one is 146.8± acres and the other is 42.5± acres. No reduction in size of either parcel is proposed; therefore, the Project is consistent with these provisions.

Based on the preceding, the proposed Project does not conflict with any applicable land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. Neither an HCP nor an NCCP exists in the Project boundaries or the vicinity. Therefore, no impacts are anticipated.

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

2.11 MINERAL RESOURCES

XI. MINERAL RESOURCES. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

2.11.1 Background and Setting

The project site has a history of mineral extraction. It was disturbed from gold dredger and gravel extraction activities that occurred in the first half of the last century, and again in the 1960s for gravel to build nearby dams.

The current project proposes to extract and re-locate cobbles and coarse gravels within the Project boundaries. All coarse sediment materials that will be excavated from the project site will be used on the project site. No excavated materials will be transported or sold off the project site. Therefore, this project does not constitute a commercial mineral extraction project.

The California Department of Conservation, Office of Mine Reclamation reviewed the 2010 Phase II project and concurred that the Project would be subject to the Surface Mining and Reclamation Act (SMARA, Public Resources Code, Section 2710, et seq.) only if more than 1000 cubic yards of material is proposed to be taken off the site for commercial purposes.

No material is proposed for removal for commercial purposes. No material is proposed for removal for commercial purposes. Therefore, the project remains exempt from SMARA.

2.11.2 Analysis

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

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

Less Than Significant Impact.

Pursuant to the California Department of Conservation Division of Mines and Geology *Mineral Land Classification of Stanislaus County, CA* Special Report 173 (1993) and Mineral Land Classification Map of Northeastern Stanislaus County Areas Classified for Deposits of Aggregate Formed by Various Geological Processes (Duprus,1993), the following data related to mineral resources is known for the site:

The Stanislaus County General Plan (2015) identifies mineral resources of value to the county (Chapter 3, Conservation & Open Space Element; Aggregate Resource Areas of Stanislaus County – State division of Mines and Geology, Special Report 173; 1993 Appendix III-A – Area F – Tuolumne River). The project site is within an identified aggregate resource area classified as MRZ-2b.

The northern portion of the site is located within an area classified as MRZ-2b:

> *Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered mineral deposits that are either inferred reserves as determined by limited sample analysis, exposure, and past mining history or are deposits that presently are sub-economic. Further exploration work and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a.*

Specifically, the site is MRZ-2b sg (C6) – an area of inferred concrete grade sand and gravel.

The project, as proposed, will extract on-site gravels—thereby using existing mineral resources consistent with the general plan. Minerals will remain on site and no structures are proposed for the project--therefore, the project will not preclude future mineral extraction activities. The land use designation for the site will remain Agricultural, which is consistent with mineral extraction activities, pursuant to Chapter 1 (Land Use; Goal one; Policy 2) and Chapter 3 (Conservation and Open Space; Goal 9, Policy 26) of the Stanislaus County General Plan.

Therefore, no impacts are anticipated.

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

2.12 NOISE

XII. NOISE -- Would the Project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	☐	☒	☐	☐
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 expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	☒
f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	☒

2.12.1 Background and Setting

The project site is relatively quiet, with the primary source of noise being traffic on State Route 132 in the vicinity of the proposed project.

2.12.2 Analysis

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

c) Result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?

No impact. The project does not include construction of new structures or noise-generating facilities. The proposed project, upon completion, will continue to exist as a natural floodplain (consistent with noise standards established in Chapter 4, Figure IV-2 of the Stanislaus County General Plan). Therefore, no impacts are anticipated.

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

d) Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Less Than Significant with Mitigation Incorporated. The proposed Project will temporarily increase noise through the following activities: placing cobbles and coarse gravels into new or enhanced gravel bars; excavating cobbles and coarse gravels on site; recontouring the existing floodplain; stockpiling, screening, sorting, cleaning gravels; sediment pond construction; and improving on-site haul roads.

Temporary increases in noise levels during these activities could disturb adjacent neighbors—a potentially significant adverse impact. The following mitigation measure, limiting the hours of construction (except in emergency situations) is required:

Mitigation Measure BIO-10: Hours of Construction.

In addition, equipment noise will contribute to increasing noise levels during aggregate processing activities—a potentially significant temporary impact. The following measure will ensure that equipment used is certified for compliance with noise (as well as air quality) requirements.

Mitigation Measure AQ-2: Authority to Construct/Permit to Operate

Proper implementation of the preceding measure is expected to minimize the temporary increase in noise levels associated with Project construction to a level of less-than-significant.

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 expose people residing or working in the Project area to excessive noise levels?*

f) *For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?*

No Impact. Oakdale Municipal Airport is located 16± miles northwest of the site and Turlock Airport is located 20± miles southwest of the project site. No private airstrips are identified in the Project area. No aviation safety hazards are expected from the project as proposed, because the site is outside the designated clear zone for departures and approaches to the nearest airports. Therefore, no impact is anticipated.
Mitigation Measure: None required.
Mitigation Monitoring: Not applicable.

2.13 POPULATION AND HOUSING

XIII. POPULATION AND HOUSING. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	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?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

2.13.1 Background and Setting

The project proposes no new housing or infrastructure. No changes in human population levels will be induced by the environmental enhancement project.

2.13.2 Analysis

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)?

No Impact.
The project involves re-introducing gravels into the Tuolumne River to enhance spawning habitat. Therefore, due to the nature of the Project, no population growth related to the project will occur.

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

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

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

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

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

2.14 PUBLIC SERVICES

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

2.14.1 Background and Setting

No extension or increased use of public services are proposed in conjunction with the proposed project. The proposed project will not increase population and will not remove any existing parks or school sites. Therefore, the project will not create an increase on the demand for the delivery of public services including fire and police protection, school facilities and parks.

2.14.2 Analysis

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

No Impact. The re-introduction of gravels into the Tuolumne River to enhance spawning habitat will not increase demand for fire protection, police protection, schools, parks or other public facilities.

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

2.15 RECREATION

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

2.15.1 Background and Setting

Turlock Lake State Park is located southwest of the project site. The proposed Project does not encroach within the boundaries of that facility. Recreational users (fishermen, canoes, kayaks) will continue to be able to float down the Tuolumne River before and after Project completion. Because work will occur primarily during the low flow season, recreational non-motorized boats are not expected to be inconvenienced during gravel re-introduction activities.

2.15.2 Analysis

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

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

No Impact

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

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

2.16 TRANSPORTATION

XVI. TRANSPORTATION/TRAFFIC. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

2.16.1 Background and Setting

Access to the site is provided directly from SR 132. An existing ranch road will provide access for Project activities as shown in **Figure 3**.

An Encroachment Permit will not be required from Caltrans, because no work is planned within state rights-of-way. No county roads will be used for the Project.

After project construction is completed, the project will not generate any additional traffic from the site, because no houses or structures are proposed that would require additional vehicle access to the site.

2.16.2 Analysis

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes

of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Conflict with an applicable congestion management program including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

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

e) Result in inadequate emergency access?

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact.
The Project re-introduces gravels into the Tuolumne River to enhance spawning habitat. Traffic will increase only during Project staging as equipment is brought on site. The Project is not located adjacent to a roadway (other than ranch roads) and will not increase population (and, therefore, will not increase traffic). No altered traffic patterns, no increase in demand for public transportation or alteration of existing traffic patterns will occur. The Project does will not close roads, therefore, it will not interfere with emergency access routes. The project does not occur near an airport and will, therefore, not change air traffic patterns. Therefore, due to the nature of the Project, no impacts are anticipated.

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

2.17 UTILITIES AND SERVICE SYSTEMS

XVII. UTILITIES AND SERVICE SYSTEMS. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

2.17.1 Background and Setting

The proposed Project does not require service by public water, public sewer, stormwater drainage systems, or solid waste disposal.

2.17.2 Analysis

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

d) *Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?*

e) *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 provide existing commitments?*

f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. Due to the size, nature and location of the Project, it will not require water treatment, will not generate wastewater, will not generate storm water runoff and will not generate solid waste. Therefore, no impacts are anticipated.

Mitigation Measure: None required.
Mitigation Monitoring: Not applicable

2.18 MANDATORY FINDINGS OF SIGNIFICANCE

XIX. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the Project have the potential to 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?	☐	☒	☐	☐

2.18.1 Analysis

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

b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

No Impact. As identified in the preceding study, no cumulatively adverse impacts have been identified for the project.

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

Less Than Significant with Mitigation Incorporated. As described herein, the proposed Project will not result in any substantial adverse effects on human beings either directly or indirectly except for temporary noise increases during project construction. **Mitigation Measure BIO-10**, limiting the hours of construction, will reduce that potential impact associated with temporary noise increases to a level of less-than-significant.

Mitigation Measures:
A list of Mitigation Measures applicable to the proposed Project is included in **Attachment A** of this report and will be employed to minimize any impacts which might result from future development of the project site.

Determination

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

_____ _____

Date

2.19 REFERENCES:

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

California Department of Conservation Division of Mines and Geology. 1993. *Mineral Land Classification of Stanislaus County, CA* Special Report 173

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United States Environmental Protection Agency. 2009. EPA Sector Strategies Program *Potential for Reducing Greenhouse Gas Emissions in the Construction Sector*

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United States Fish and Wildlife Service – IPAC December 2018

Ibid. E-mail. J.D. Wickert e-mail dated December 3, 2018 RE: Work Window for Fisheries

United States Geological Survey – Cooperstown 7.5 Minute Quadrangle Map

Prepared by:

Amy Augustine, AICP
Augustine Planning Associates, Inc.

Attachment A: Mitigation Monitoring and Reporting Plan

To be provided after receipt of comments resulting from State Clearinghouse Review

Attachment B
Air Quality Study

KD Anderson & Associates, Inc.
Transportation Engineers

January 21, 2019

Ms. Amy Augustine, AICP
Augustine Planning Associates
270 S. Barretta Street, Suite C
P.O. Box 3117
Sonora, CA 95370

Subject: ***Bobcat Flat East (Phase III) Project Air Quality Analysis***

Dear Ms. Augustine:

On behalf of KD Anderson & Associates (KDA), I am pleased to submit this letter report presenting the results of air quality analysis of the Bobcat Flat East (Phase III) project. This letter report presents a description of the project, the methods used in the air quality analysis, and the results of the air quality analysis.

PROJECT DESCRIPTION

The following is a brief description of the Bobcat Flat East (Phase III) project. The project is proposed to restore, increase, and enhance the quantity and quality of habitat for waterfowl, aquatic, and terrestrial species within and adjacent to the Tuolumne River. The project would involve:

- reestablishing natural floodplain processes through channel contouring and connections,
- replenishing spawning gravel through augmentation, and
- bank re-vegetation and riparian habitat preservation activities promoting both wetland and upland native plant communities.

As shown in **Figure 1**, the Bobcat Flat East (Phase III) project is located 5.0± miles west of La Grange and 11.4± miles east of Waterford. As shown in **Figure 2**, the project site is located along and adjacent to the Tuolumne River in unincorporated eastern Stanislaus County, California. The project encompasses approximately 190 acres and 0.9± river mile. As shown in **Figure 3**, site access is proposed using an existing ranch road.

Restoration already has occurred in the western portion of the overall Bobcat Flat Restoration project site (i.e., Bobcat Flat West-Phases I and II) along the Tuolumne River. The proposed project (Phase III) is the proposed final phase of the Bobcat Flat Restoration Project.

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Construction of the Bobcat Flat East (Phase III) project is expected to occur within five construction seasons. Construction activity would occur when the water level in the Tuolumne River is low. Water levels low enough for construction activity would usually occur from early August through late September, with the construction period sometimes beginning as early as mid-July and as late as mid-October (Boucher pers. comm.).

Construction is expected to begin in approximately July 2021 with completion in October 2025.

Due to the nature of the Bobcat Flat East (Phase III) project, no project-related emissions would occur after gravel reintroduction and revegetation is complete. Therefore, the project would not result in a long-term change in operational pollutant emissions. No long-range air quality impacts would occur and no mitigation measures addressing long-term operational emissions are required.

SIGNIFICANCE THRESHOLDS

Implementation of the Bobcat Flat East (Phase III) project would result in construction activity, which would generate air pollutant emissions. Construction activities such as grading, excavation and travel on unpaved surfaces would generate dust, and can lead to elevated concentrations of inhalable particulate matter smaller than 10 microns in diameter (PM_{10}), and fine particulate matter small than 2.5 microns in diameter ($PM_{2.5}$). The operation of construction equipment results in exhaust emissions. A substantial portion of the construction equipment is powered by diesel engines, which produce relatively high levels of nitrogen oxide (NO_x) emissions. Construction activity could also potentially entrain naturally occurring asbestos (NOA), if present in the soil.

Ozone Precursor, Particulate Matter, and Carbon Monoxide Emissions

To evaluate the significance of pollutant emissions impacts, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has established significance thresholds for emissions of ozone precursors reactive organic gas (ROG) and NO_x, PM_{10}, $PM_{2.5}$, sulfur oxides (SO_x) and carbon monoxide (CO) (San Joaquin Valley Air Pollution Control District 2019). These types of emissions are referred to as "criteria" pollutants. Significance thresholds used in this report are from the SJVAPCD.

The SJVAPCD significance thresholds used in this report in the evaluation of criteria pollutant impacts associated with the proposed project are:

- 100 tons per year (tpy) of CO,
- 10 tpy of NO_x,
- 10 tpy of ROG,
- 27 tpy of SO_x,
- 15 tpy of PM_{10}, and
- 15 tpy of $PM_{2.5}$.

KDA

If the proposed project's criteria pollutant emissions exceed the above pollutant thresholds, the project will be considered to have a significant effect on air quality.

Greenhouse Gas Emissions

Construction of the Bobcat Flat East (Phase III) project would generate combustion emissions from various sources. During site preparation and construction, GHGs would be emitted from construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. Construction activities would contribute to the total annual GHG emissions in the State.

Neither the SJVAPCD nor the California Air Resources Board (ARB) has issued quantitative thresholds for construction-related GHG emissions for CEQA. To identify the significance of long-term operational GHG emissions impacts, the SJVAPCD specifies the use of Best Performance Standards (BPS) – measures that would reduce GHG emissions. However, the SJVAPCD has not released a set of BPS for short-term construction-related GHG emissions.

In the absence of clear thresholds, guidance, or BPS for construction-related GHG emissions, the project would instead adhere to a suite of best practices extracted from the existing literature to achieve a less than significant impact on GHG emissions.

In 2009, EPA's Sector Strategies Program produced a report analyzing construction-related GHG emissions titled *Potential for Reducing Greenhouse Gas Emissions in the Construction Sector* (U.S. Environmental Protection Agency 2009). The report identifies fossil fuel combustion, primarily from construction equipment, and fuel use from purchased electricity as the two major sources of GHG emissions in the construction industry, with approximately three-quarters of GHG emissions from the construction sector resulting from diesel, gasoline, and natural gas combustion. Therefore, strategies to reduce GHG emissions from construction projects should focus on reducing fossil fuel consumption by construction equipment.

Naturally Occurring Asbestos

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

KDA

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

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

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

METHODOLOGY

The following describes methods used to assess project-related air quality impacts.

Criteria Pollutant and Greenhouse Gas Emissions

The Road Construction Emissions Model was used to quantify criteria pollutant and GHG emissions associated with the Bobcat Flat East (Phase III) project.

The Road Construction Emissions Model is a spreadsheet-based model specifically designed to estimate criteria pollutant and GHG emissions associated with construction of roadway facilities and other linear projects. The model uses basic project information (e.g., total construction months, project type, total project area) to quantify exhaust emissions from heavy-duty construction equipment, haul trucks, and worker commute trips, as well as fugitive particulate matter dust. Additional information on the Road Construction Emissions Model is available at the Sacramento Metropolitan Air Quality Management District internet website (Sacramento Metropolitan Air Quality Management District 2019). Output reports from the Road Construction Emissions Model used in this report are enclosed.

Naturally-Occurring Asbestos

As noted above, the map *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (California Department of Conservation 2000) is used in this report as a source of information on the potential for NOA to be present on the project site.

AIR QUALITY ANALYSIS RESULTS

The following describes the results of the air quality analysis and the significance of air quality impacts of the Bobcat Flat East (Phase III) project.

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Criteria Pollutant Emissions

Construction of the proposed project would result in the generation of criteria pollutant emissions. The enclosed **Table 1** shows annual project-related criteria pollutant emissions. As noted in the *Project Description* section of this letter report, construction is expected to occur in the period 2021 to 2025. Over time, newer construction equipment meeting more recent stricter emissions standards will replace older equipment that generates relatively higher levels of emissions. As a result the highest levels of project-related emissions are expected to occur during the first year of construction: 2021. The results shown in **Table 1** are for the year 2021.

None of the values shown in **Table 1** would exceed the SJVAPCD significance thresholds. Therefore, this impact is considered less than significant, and no mitigation measures are required.

As noted in the *Project Description* section of this report, the Bobcat Flat East (Phase III) project would not result in a long-term change in system capacity. As a result, the project would not result in a change in long-term operational criteria pollutant emission. This impact is considered less than significant and no mitigation measures are required.

Greenhouse Gas Emissions

Construction of the Bobcat Flat East (Phase III) project would generate combustion emissions, including GHG emissions.

Implementation of **Mitigation Measure GHG-1** through **Mitigation Measure GHG-3**, below, would reduce the contribution of GHG emissions during the construction period of the Bobcat Flat East (Phase III) project.

Mitigation Measure GHG-1: Authority to Construct/Permit to Operate. Prior to commencing project activities, the Project Proponent/Contractor shall secure an Authority to Construct Permit and Permit to Operate or waiver from the SJVAPCD for equipment used for processing (e.g., pumps in excess of 50 hp; screening equipment), constructing or improving access roads and related activities. The Authority to Construct Permit shall ensure that equipment used is certified for compliance with air quality requirements of the State of California.

This mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the Project Proponent/Contractor.

Mitigation Measure GHG-2: Construction Equipment. To the extent feasible, the following measures shall be incorporated into Project design and construction:

- Properly tune and maintain construction equipment and vehicles.

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- On-site idling of construction equipment shall be minimized (no more than five minutes maximum).

- Biodiesel shall be used as an alternative fuel diesel for at least 15 percent of the construction vehicles/equipment used if there is a biodiesel station within five miles of the Project site.

This mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.

Mitigation Measure GHG-3: Construction Material. To the extent feasible, the following measures shall be incorporated into Project design and construction:

- At least 10 percent of the building material used for the proposed project shall be local.

- At least 50 percent of construction waste or demolition materials shall be recycled.

This mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.

Implementation of Mitigation Measure GHG-1 through Mitigation Measure GHG-3 would reduce the contribution of GHG emissions during construction. Impacts would be less than significant with mitigation incorporated.

Quantification. As noted previously, neither the SJVAPCD nor ARB has issued quantified CEQA significance thresholds for construction-related GHG emissions. However, Section 15064.4 of the *State CEQA Guidelines* states,

> "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project."

In response to Section 15064.4 of the *State CEQA Guidelines*, GHG emissions related to the Bobcat Flat East (Phase III) project were quantified for this letter report. Consistent with procedures recommended by the SJVAPCD, the emissions due to construction of the Bobcat Flat East (Phase III) project were estimated using the Road Construction Emissions Model (http://www.valleyair.org/ISR/Documents/ISR_faq_rc.pdf). As noted in the *Project Description* section of this letter report, construction is expected to occur in the period 2021 to 2025. Over time, newer construction equipment meeting more recent stricter emissions standards will replace older equipment that generates relatively higher levels of emissions. As a result the highest levels of project-related emissions are expected to occur during the first year of construction: 2021. During 2021, the project would generate 211.71 metric tons of carbon dioxide equivalent emissions.

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As noted in the *Project Description* section of this report, the Bobcat Flat East (Phase III) project would not result in a long-term change in system capacity. As a result, the project would not result in a change in long-term operational GHG emission. This impact is considered less than significant and no mitigation measures are required.

Naturally Occurring Asbestos

The map, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* shows areas more likely to contain NOA. Soil-disturbing construction activity in these areas would result in an elevated risk of entraining NOA. The asbestos map shows the project site is located approximately 12 miles away from the nearest area considered more likely to contain NOA – in the area trending northwest to southeast near Lake Don Pedro.

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

CLOSING

Thank you for providing KDA with this opportunity to provide Augustine Planning Associates with air quality analysis services on the Bobcat Flat East (Phase III) project. Please let me know if you have any questions about this letter report.

Sincerely,

KD Anderson & Associates, Inc.

Wayne Shijo
Project Manager

enclosures

KDA

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Boucher, Allison. Friends of the Tuolumne (Tuolumne River Conservancy, Inc.). December 22, 2018 and January 5, 2019 E-mail messages to Amy Augustine; Augustine Planning Associates; and Dave Boucher, Friends of the Tuolumne (Tuolumne River Conservancy, Inc.).

Table 1. Bobcat Flat East (Phase III) Criteria Pollutant Emissions

Year or Significance Variable	Type of Pollutant Emissions					
	Carbon Monoxide	Nitrogen Oxides	Reactive Organic Gases	Sulfur Oxides	Inhalable Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Year 2021	1.35	1.65	0.17	< 0.01	9.56	2.05
Significant Impact?	No	No	No	No	No	No
Significance Threshold	100	10	10	27	15	15

Sources: Road Construction Emissions Model, and San Joaquin Valley Air Pollution Control District 2018.

Note: All values are expressed in tons per year.

Figure 1. Regional Location

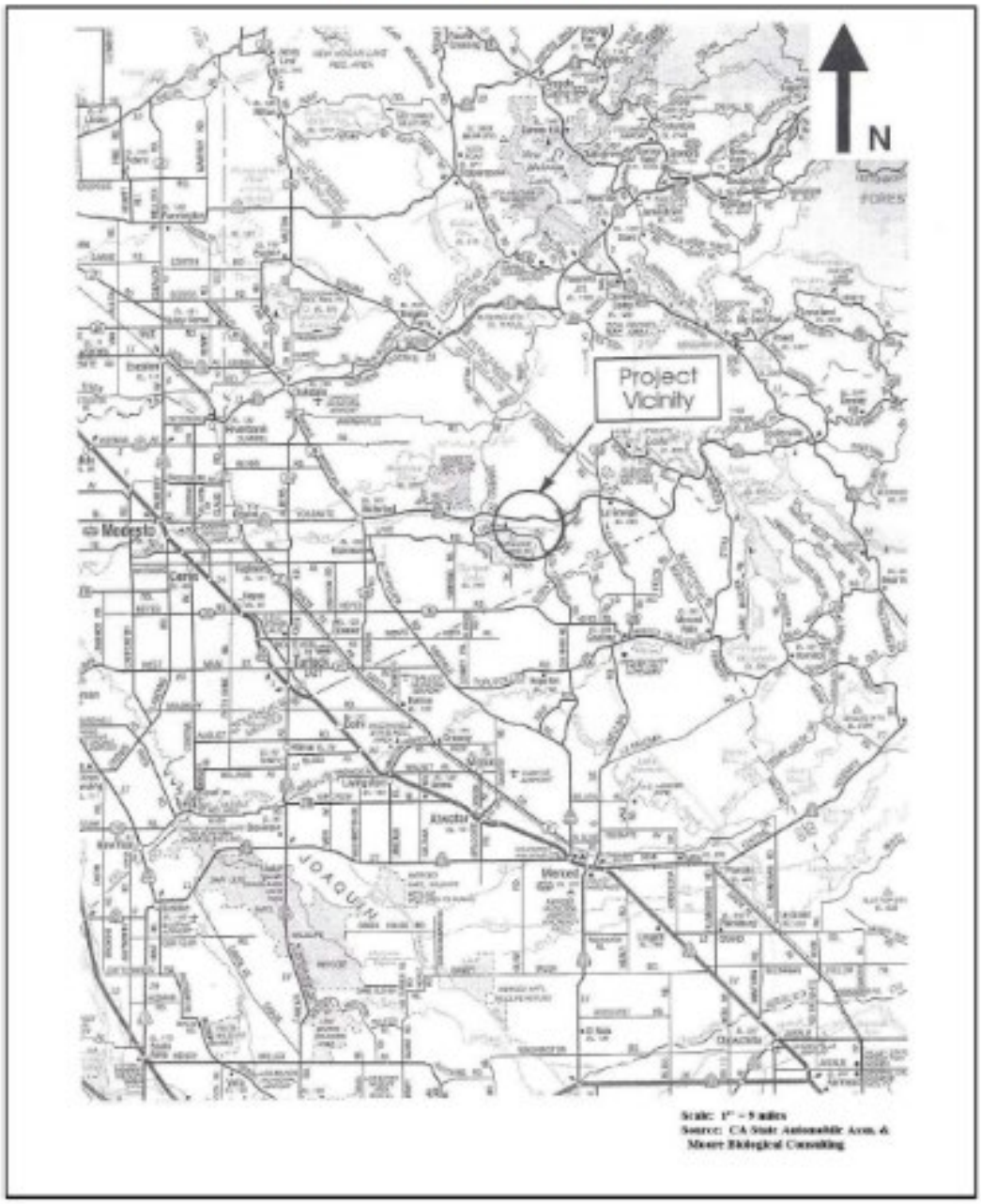

Figure 2. Project Site

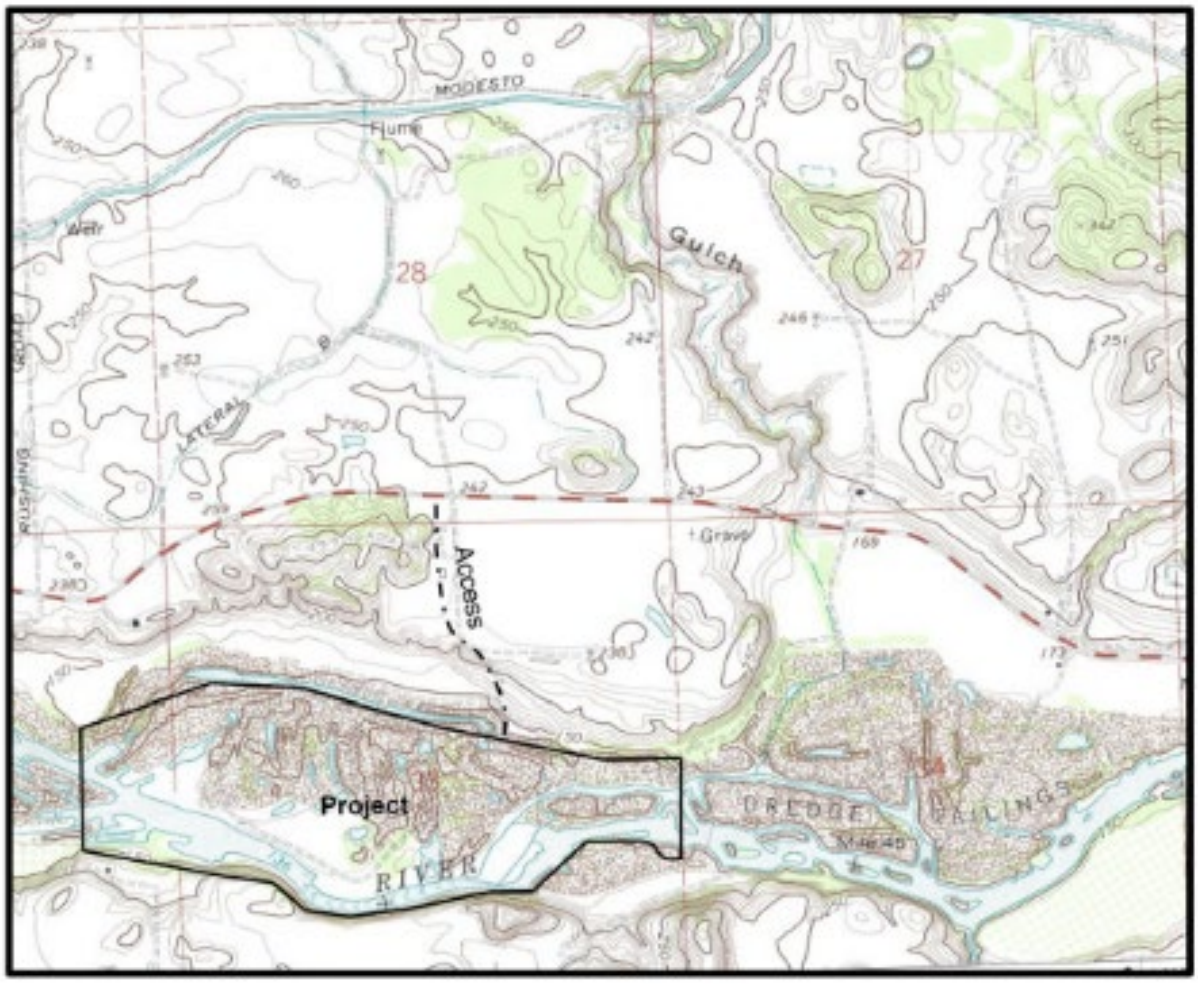

Figure 3. Project Access (Existing Ranch Roads)

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> Bobcat Flat East (Ph III) - For 2021 Annual Grading Only				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust					
Project Phases (Pounds)	**ROG (lbs/day)**	**CO (lbs/day)**	**NOx (lbs/day)**	**PM10 (lbs/day)**	**PM10 (lbs/day)**	**PM10 (lbs/day)**	**PM2.5 (lbs/day)**	**PM2.5 (lbs/day)**	**PM2.5 (lbs/day)**	**SOx (lbs/day)**	**CO2 (lbs/day)**	**CH4 (lbs/day)**	**N2O (lbs/day)**	**CO2e (lbs/day)**
Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation	6.62	53.89	66.06	382.52	3.52	379.00	81.99	3.16	78.83	0.09	9,241.98	2.31	0.12	9,334.54
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum (pounds/day)	6.62	53.89	66.06	382.52	3.52	379.00	81.99	3.16	78.83	0.09	9,241.98	2.31	0.12	9,334.54
Total (tons/construction project)	0.17	1.35	1.65	9.56	0.09	9.48	2.05	0.08	1.97	0.00	231.05	0.06	0.00	233.36

Notes:

Project Start Year ->	2021
Project Length (months) ->	2
Total Project Area (acres) ->	190
Maximum Area Disturbed/Day (acres) ->	19
Water Truck Used? ->	Yes

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	0	0
Grading/Excavation	0	0	0	0	1,920	0
Drainage/Utilities/Sub-Grade	0	0	0	0	0	0
Paving	0	0	0	0	0	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.
Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.
CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Bobcat Flat East (Ph III) - For 2021 Annual Grading Only				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust					
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	**ROG (tons/phase)**	**CO (tons/phase)**	**NOx (tons/phase)**	**PM10 (tons/phase)**	**PM10 (tons/phase)**	**PM10 (tons/phase)**	**PM2.5 (tons/phase)**	**PM2.5 (tons/phase)**	**PM2.5 (tons/phase)**	**SOx (tons/phase)**	**CO2 (tons/phase)**	**CH4 (tons/phase)**	**N2O (tons/phase)**	**CO2e (MT/phase)**
Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation	0.17	1.35	1.65	9.56	0.09	9.48	2.05	0.08	1.97	0.00	231.05	0.06	0.00	211.71
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum (tons/phase)	0.17	1.35	1.65	9.56	0.09	9.48	2.05	0.08	1.97	0.00	231.05	0.06	0.00	211.71
Total (tons/construction project)	0.17	1.35	1.65	9.56	0.09	9.48	2.05	0.08	1.97	0.00	231.05	0.06	0.00	211.71

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.
Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.
CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.
The CO2e emissions are reported as metric tons per phase.

Attachment C
Species List

ATTACHMENT C:

Species Observed During Site Surveys 2017-2019
Bobcat Flat East – Phase III (Tuolumne River)

Species	Comments/a/
Plants	
Trees	
Sycamore/London Plane tree *Platanus ×hispanica*	Non-native
Chinese tree of heaven *Ailanthus altissima*	Non-native
White alder *Alnus rhombifolia*	
Catalpa *Catalpa* sp.	Non-native
Common buttonbush/button willow *Cephalanthus occidentalis*	
Eucalyptus *Eucalyptus* sp.	Non-native, planted as ornamental
Fig *Ficus carica*	Non-native
Oregon ash *Fraxinus latifolia*	
Fremont cottonwood *Populus fremontii ssp. fremontii*	
Blue oak *Quercus douglasii*	
Valley oak *Quercus lobata*	
Sandbar willow *Salix exigua*	
Gooding's willow *Salix gooddingii*	
Red willow/ Polished willow *Salix laevigata*	
Ferns	
Mosquito Fern *Azolla filiculoides*	
ANGIOSPERMS/DICOTS	
Adoxaceae	
Blue elderberry *Sambucus niger*	
Aizoaceae	
Western sea purslane *Sesuvium verrucosum*	
Anacardiaceae	
Poison oak *Toxicodendron diversilobum*	

Species	Comments/a/
Apiaceae	
Fennel *Foeniculum vulgare*	Non-native
Poison hemlock *Conium maculatum*	Non-native
Field hedge parsley *Torilis arvensis*	Non-native
Asclepidaceae	
Narrow-leaf milkweed *Asclepias fascicularis*	
Asteraceae	
Western ragweed *Ambrosia psilostachya*	
California mugwort *Artemisia douglasiana*	
Douglas' baccharis/Salt marsh baccharis *Baccharis glutinosa*	
Coyote bush *Baccharis pilularis* ssp. *consanguinea*	
Bur marigold *Bidens laevis*	
Italian thistle *Carduus pycnocephalus* ssp. *pycnocephalus*	Non-native
Star thistle *Centaurea solstitialis*	Non-native
Spikeweed *Centromadia fitchii*	
Tarweed *Centromadia parryi*	
Chicory *Cichorium intybus*	Non-native
Bull thistle *Cirsium vulgare*	
Canada horseweed *Erigeron canadensis*	
Gumweed *Grindelia camporum*	
Sneezeweed *Helenium puberulum*	
Sunflower *Helianthus annuus*	
Bolander's sunflower *Helianthus bolanderi*	
Tarweed *Holocarpha obconica*	
Prickly lettuce *Lactuca serriola*	Non-native
Narrowleaf cottonrose *Logfia gallica*	Non-native

Species	Comments/a/
Everlasting cudweed *Pseudognaphalium, luteoalbum*	Non-native
Rabbit tobacco *Pseudognaphalium biolettii*	
Western bog aster *Symphyotrichum spathulatum* var. *yosemitanum*	
Rough cocklebur *Xanthium strumarium*	
Boraginaceae	
Fiddleneck *Amsinckia* sp.	
Brassicaceae	
Black mustard *Brassica nigra*	Non-native
Broadleaf pepperweed *Lepidium latifolium*	
Curvepod yellowcress *Rorippa curvisiliqua*	
Caryophyllaceae	
Four-leaved allseed *Polycarpon tetraphyllum* var. *tetraphyllum*	Non-native
Campion *Silene* sp.	
Purple sand spurry *Spergularia rubra*	Non-native
Euphorbiaceae	
Chamaesyce sp.	Confirmed not Hoover's spurge
Turkey mullein *Croton setiger*	
Fabaceae	
American bird's foot trefoil *Acmispon americanus*	
Spanish lotus *Acmispon americanus* var. *americanus*	
Bird's foot trefoil *Lotus corniculatus*	Non-native
Bush lupine *Lupinus albifrons*	
Rose clover *Trifolium hirtum*	Non-native
Common vetch *Vicia sativa*	2010
Hairy vetch *Vicia villosa*	Non-native
Gentianaceae	
Slender centaury *Centaurium tenuiflorum*	Non-native
Geraniaceae	

Species	Comments/a/
Filaree *Erodium botrys*	Non-native
Haloragaceae	
Parrott's feather *Myriophyllum aquaticum*	Non-native
Lamiaceae	
Horehound *Marrubium vulgare*	Non-native
Mint *Mentha sp.*	
Vinegarweed *Trichostema lanceolatum*	
Lythraceae	
Hyssop loosetrife *Lythrum hyssopifolia*	Non-native
Molluginaceae	
Indian chickweed *Mollugo verticillata*	Non-native
Onagraceae	
Torrey's willow herb/Brook spike-primrose *Epilobium torreyi*	
Water primrose *Ludwigia peploides*	
Phrymaceae	
Yellow monkey flower *Erythranthe guttata*	
Phytolaccaceae	
Pokeweed *Phytolacca americana*	Non-native
Plantaginaceae	
Sharp-point fluellin *Kickxia elatine*	Non-native
English plantain *Plantago lanceolatum*	Non-native
Common plantain *Plantago major*	Non-native
Polygonaceae	
Common knotweed *Persicaria lapathifolia*	
Dotted smartweed *Persicaria punctata*	
Curly dock *Rumex crispus*	Non-native
Fiddledock *Rumex pulcher*	Non-native
Portulacaceae	
Common purslane *Portulaca oleracea*	Non-native

Species	Comments/a/
Rhamnaceae	
California coffeeberry *Frangula californica* ssp. *californica*	
Hoary coffeeberry *Frangula californica* ssp. *tomentella*	
Rosaceae	
Himalayan blackberries *Rubus armeniacus*	Non-native
Scrophulariaceae	
Moth mullein *Verbascum blattaria*	
Woolly mullein *Verbascum thapsus*	Non-native
Solanaceae	
Jimsonweed *Datura wrightii*	
Many-flowered tobacco *Nicotiana acuminata*	Non-native
Nightshade *Solanum americanum*	
Urticaceae	
Nettle *Urtica dioica*	
Verbenaceae	
Lance leaf lippia *Phyla lanceolata*	
Common lippia (Frogfruit) *Phyla nodiflora*	
Swamp vervain *Verbena hastata*	
Robust vervain *Verbena lasiostachys* ssp. *scabrida*	
Vitaceae	
California wild grape *Vitis californica*	
ANGIOSPERMS/MONOCOTS	
Cyperaceae	
Tall flatsedge *Cyperus eragrostis*	
Red-rooted cyperus *Cyperus erythrorhizos*	
Spike rush *Eleocharis macrostachya*	
Juncaceae	
Mexican rush *Juncus mexicanus*	
Iris-leaved rush *Juncus xiphioides*	

Species	Comments/a/
Poaceae	
Silvery hairgrass *Aira caryophyllea*	Non-native
Giant reed *Arundo donax*	Non-native
Small quaking/rattlesnake grass *Briza minor*	Non-native
Red brome *Bromus madritensis* ssp. *rubens*	Non-native
Swamp pricklegrass/ Swamp grass *Crypsis schoenoides*	Non-native
Bermuda grass *Cynodon dactylon*	Non-native
Annual hairgrass *Deschampsia danthanoides*	
Smooth crabgrass *Digitaria ischaemum*	Non-native
Barnyard grass *Echinochloa crus-galli*	Non-native
Teal lovegrass *Eragrostis hypnoides*	
Nit grass *Gastridium phleoides*	Non-native
Dallis grass *Paspalum dilatatum*	Non-native
Annual beard grass *Polypogon monspeliensis*	Non-native
Marsh/Knotroot brittlegrass *Setaria parviflora*	
Yellow brittlegrass *Setaria pumila*	Non-native
Johnsongrass *Sorghum halepense*	Non-native
Pontederiaceae	
Water hyacinth *Eichhornia crassipes*	Non-native
Typhaceae	
Common cattail *Typha latifolia*	
ANIMALS	
Insects	
Common buckeye butterfly *Junonia coenia*	
Fish	
Sacramento sucker *Catostomus occidentalis*	2010
Prickly sculpin *Cottus asper*	2010
Common carp	

Species	Comments/a/
Cyprinus carpio	
Smallmouth bass *Micropterus dolomieui*	2010
Largemouth bass *Micropterus salmoides*	
Striped bass *Morone saxatilis*	2010
Chinook salmon *Oncorhynchus tshawytscha*	2010
Amphibians	
American bullfrog *Lithobates catesbeiana*	Non-native
Sierran chorus frog *Pseudacris sierra*	
Reptiles	
Western pond turtle *Actinemys marmorata*	
Western whiptail *Cnemidophorus tigris*	2010
California mountain kingsnake *Lampropeltis zonata*	2010
Sagebrush lizard *Sceloporus graciosus*	
Western fence lizard *Sceloporus occidentalis*	
Birds	
Cooper's hawk *Accipiter cooperii*	
Sharp-shinned hawk *Accipiter striatus*	2010
Red-winged blackbird *Agelaius phoeniceus*	2010
Wood duck *Aix sponsa*	
Cinnamon teal *Anas cyanoptera*	2010
Mallard *Anas platyrhynchos*	2010
Gadwall *Anas strepera*	2010
Western scrub-jay *Aphelocoma californica*	
Great egret *Ardea alba*	
Great blue heron *Ardea herodias*	
Oak titmouse *Baeolophus inornatus*	
American bittern	2010

Species	Comments/a/
Botaurus lentiginosus	
Canada goose *Branta canadensis*	
Great horned owl *Bubo virginianus*	
Red-tailed hawk *Buteo jamaicensis*	
Red-shouldered hawk *Buteo lineatus*	
Swainson's hawk *Buteo swainsoni*	
Lesser goldfinch *Carduelis psaltria*	2010
American goldfinch *Carduelis tristis*	2010
California quail *Callipepla californica*	
Anna's hummingbird *Calypte anna*	
Turkey vulture *Cathartes aura*	
Killdeer *Charadrius vociferus*	
Northern flicker *Colaptes auratus*	
American crow *Cornus brachyrhynchos*	
Common raven *Corvus corax*	
Yellow-rumped warbler *Dendroica coronata*	
White-tailed kite *Elanus leucurus*	2010
Brewer's blackbird *Euphagus cyanocephalus*	
American kestrel *Falco sparverius*	
Common morehen *Gallinula chloropus*	2010
House finch *Haemorhous mexicanus*	
Bald eagle *Haliaeetus leucocephalus*	
Barn swallow *Hirundo rustica*	2010
Bullock's oriole *Icterus bullockii*	
Belted kingfisher *Megaceryle alcyon*	

Species	Comments/a/
Wild turkey *Meleagris gallopavo*	
Acorn woodpecker *Melanerpes formicivorus*	
Song sparrow *Melospiza melodia*	
Northern mockingbird *Mimus polyglottos*	
Brown-headed cowbird *Molothrus ater*	
Ash-throated flycatcher *Myiarchus cinerascens*	
Black-crowned night-heron *Nycticorax*	
Osprey *Pandion haliaetus*	
Band-tailed pigeon *Patagioenas fasciata*	
American white pelican *Pelecanus erythrorhynchos*	
Cliff swallow *Petrochelidon pyrrhonota*	
Phainopepla *Phainopepla nitens*	
Double-crested cormorant *Phalacrocorax auritus*	
Black-headed grosbeak *Pheucticus melanocephalus*	
Yellow-billed magpie *Pica nuttalli*	
Nuttall's woodpecker *Picoides nuttallii*	
Downy woodpecker *Picoides pubescens*	
California towhee *Pipilo crissalis*	
Spotted towhee *Pipilo maculatus*	
Western tanager Piranga ludoviciana	2010
Bushtit *Psaltriparus minimus*	
Ruby-crowned kinglet *Regulus calendula*	2010
Black phoebe *Sayornis nigricans*	
Say's phoebe *Sayornis saya*	
Western bluebird	

Species	Comments/a/
Sialia mexicana	
White-breasted nuthatch *Sitta carolinensis*	
Lesser goldfinch *Spinus psaltria*	
American goldfinch *Spinus tristis*	
Northern rough-winged swallow *Stelgidopteryx serripennis*	
Eurasian collared-dove *Streptopelia decaocto*	
Western meadowlark *Sturnella neglecta*	2010
European starling *Sturnus vulgaris*	Non-native
House wren *Thryomanes aedon*	2010
Bewick's wren *Thryomanes bewickii*	
Tree swallow *Trachycineta bicolor*	
Greater yellowlegs *Tringa melanoleuca*	
House wren *Troglodytes aedon*	
American robin *Turdus migratorius*	
Western kingbird *Tyrannus verticalis*	
Orange-crowned warbler *Vermivora celata*	2010
Warbling vireo *Vireo gilvus*	
Mourning dove *Zenaida macroura*	
Gold-crowned sparrow *Zontrichia atricapilla*	2010
White-crowned sparrow *Zonotrichia leucophrys*	
Mammals	
Coyote *Canis latrans*	
American beaver *Castor canadensis*	
Northern river otter *Lontra canadensis*	
Dusky-footed woodrat *Neotoma fuscipes*	2010, possible abandoned den remains on site
Mule deer	

Species	Comments/a/
Odocoileus hemionus	
Muskrat *Ondatra zibethicus*	2010
Racoon *Procyon lotor*	
California ground squirrel *Spermophilus beecheyi*	2010
Audubon's cottontail *Sylvilagus audubonii*	

/a/ 2010 refers to Moore Biological Consulting surveys in 2010 (not seen in 2017-2019)

Attachment D
Native American Consultation Results

Davis-King & Associates
Heritage Resources Management
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TO: Amy Augustine

FROM: Shelly Davis-King, MA, RPA 10039, Principal

DATE: 3 March 2019

SUBJECT: Bobcat Flat East (Phase III) Project

The Tuolumne River Conservancy, Inc. has determined to apply for grant monies to undertake the Bobcat Flat East (Phase III) Salmon Habitat Restoration (Tuolumne River Mile 43.5± to 44.5±). The Project is proposed to restore, increase, and enhance the quantity and quality of salmonid and steelhead spawning and rearing habitat and improve habitat for waterfowl and other aquatic and terrestrial species between River Miles 43.5± to 44.5± within and adjacent to the Tuolumne River in rural Stanislaus County, California.

In 2004, Davis-King & Associate (DKA) conducted a cultural resources survey of the area with negative results (2004 *Historic Properties Survey Report Of the Proposed Bobcat Flat (River Mile 43) Coarse Sediment Introduction Project, Tuolumne River near La Grange, Stanislaus County, California*. Submitted to Friends of the Tuolumne, Modesto, for the U.S. Fish and Wildlife Service, Sacramento). Augustine Land Use Planning (ALP) requested DKA's assistance with the current phase of the Project, specifically with a request to investigate Tribal Cultural Resources, pursuant to Public Resources Code § 21080.3.1(b) and recent changes in the California Environmental Quality Act (CEQA). In addition, an updated record search was requested of the Central California Information Center, again, with negative results for the project area.

In December 2018, ALP contacted the Native American Heritage Commission (NAHC) to request a list of Native Americans who might be contacted about the project and to inquire whether any sacred sites have been identified in the project area. The NAHC responded on 8 January 2019 that a search of the sacred land file return no sacred area documents, but recommended seven groups who might have information about the project. These groups are:

Calaveras Band of Mi-Wuk Indians (Debra Grimes, Cultural Resource Specialist)
California Valley Miwok Tribe (Tribal Chair)
North Valley Yokuts Tribe (Katherine Erolinda Perez, Chairperson)
Sheep Rancheria of Me-Wuk Indians of California (Lawrence Wilson)
Southern Sierra Miwuk Nation (Bill Leonard, Chairperson)
Tule River Indian Tribe (Neil Peyron, Chairperson)
Tuolumne Band of Me-Wuk Indians (Kevin Day, Chairperson)

DKA and ALP independently sent letters to each of the tribal entities, especially wishing to know if the tribes wanted to consult about Tribal Cultural Resources. Information about each group is listed below.

Calaveras Band of Mi-Wuk Indians

Debra Grimes, Cultural Resource Specialist and Tribal Vice Chair of the Calaveras Band of Mi-Wuk Indians was contacted via letter, telephone, and email, and in a telephone conversation responded that the project area is located outside of the Tribe's traditional territory, and their name should not be listed on the NAHC list for Stanislaus County. DKA provided information about the project land history, with an emphasis on the dredge mining work in the past and the negative survey results, and Ms. Grimes felt that there was no concern on the part of the Tribe for this project. They do not wish to consult about Tribal Cultural Resources.

California Valley Miwok Tribe

The California Valley Miwok Tribe Tribal Chair, Silvia Burley, was contacted by letter, and followup telephone call. The Tribe's representative, Tiger Paulk, called ALP and stated that they do not wish to consult about Tribal Cultural Resources for this Project, they are happy with the Project process of contacting them, and they have no concerns.

North Valley Yokuts Tribe

The North Valley Yokut Tribe (Nototomne Yokut) were contacted by letter, email, and telephone. Conversations were had with Tribal Chairperson, Katherine Erolinda Perez, who had questions about the project which were answered. Based on communication about the project area, the Nototomne Yokut do not wish to consult on this Project regarding Tribal Cultural Resources, and do not have concerns.

Sheep Rancheria of Me-Wuk Indians of California

Sheep Rancheria of Me-Wuk Indians of California was contacted via letter regarding a desire to consult. Tribal representative, Lawrence Wilson, contacted ALP saying that he would like to see the Project site before letting the Project team know about consultation. He visited the Project site, voiced no concerns, and did not suggest that the Tribe wished to consult regarding Tribal Cultural Resources.

Southern Sierra Miwuk Nation

The Southern Sierra Miwuk Nation, also known as the American Indian Council of Mariposa County, was sent two letters, and messages were left on the Tribe's answering machine, asking if they wished to consult. The Tribe did not respond to the letters asking if they wished to consult, nor was a return telephone call received.

Tule River Indian Tribe

The Tule River Indian Tribe was contacted by letter to see if they wished to consult about Tribal Resources. The Tribe did not respond to the letter, but previous interaction with the Environmental Office of the Tribe has suggested that they only wish to be contacted or consulted when there are sensitive resources in a project area.

Tuolumne Band of Me-Wuk Indians

The Tuolumne Band of Me-Wuk Indians was contacted in person, by letter, and via email. The Tribal Chairperson, Kevin Day, designated Tribal member Reba Fuller to represent the Tribe. Ms. Fuller requested a site visit, which was held on 1 February 2019, and followed by a letter signed by Kevin Day stating the Tribe does not wish to consult about Tribal Cultural Resources, but is very interested in the salmon restoration, wishes to bring Tribal youth to the project area for education about projects such as this, and wishes to be kept informed during the life of the Project.

Summary of Consultation

Seven Tribes were contacted regarding Tribal Cultural Resources. Two of the Tribes did not respond to letter, email, and voice mail requests. Two of the Tribes requested site visits, but upon seeing the Project site, do not have concerns about Tribal Resources, and three of the Tribes said they did not wish to consult about Tribal Cultural Resources. No additional work with respect to Tribal Cultural Resources is thought to be necessary because no Tribal Cultural Resources have been identified in the Project and no California Native American Tribes traditionally and culturally affiliated with the project area have requested consultation pursuant to Public Resources Code section 21080.3.1. For purposes of Tribal Cultural Resources, the proposed project will not have a significant effect on the environment.