

*PUBLIC REVIEW DRAFT*  
INITIAL STUDY/  
MITIGATED NEGATIVE DECLARATION

FOR THE

KASSON EROSION REPAIR PROJECT

East of Kasson Road  
San Joaquin County, CA

October 3, 2017

*Prepared for:*

Reclamation District 2085  
451 Critchett Road  
Tracy, CA 95304

*Prepared by:*

BaseCamp Environmental  
115 S. School Street, Suite 14  
Lodi, CA 95240  
209-224-8213

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## LIST OF ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

AB	Assembly Bill
APN	Assessor's Parcel Number
ARB	California Air Resources Board
BMP	Best Management Practice
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CVFPB	Central Valley Flood Protection Board
dB	decibel
dBA	decibel, A-weighted
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act (federal)
FEMA	Federal Emergency Management Agency
FSRP	Flood System Repair Project
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
IS	Initial Study
KSN	Kjeldsen, Sinnock and Neudeck (engineering firm)
L <sub>eq</sub>	equivalent sound level
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
NMFS	National Marine Fisheries Service
NO <sub>x</sub>	nitrogen oxide
OHWM	ordinary high water mark
PM <sub>2.5</sub>	particulate matter 2.5 micrometers or less in diameter
PM <sub>10</sub>	particulate matter 10 micrometers or less in diameter
RCEM	Road Construction Emissions Model
RD 2085	Reclamation District No. 2085
ROG	reactive organic gases
RSP	rock slope protection
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SJCOG	San Joaquin Council of Governments
SJMSCP	San Joaquin County Multi-Species Open Space and Habitat Conservation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District

SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

# NEGATIVE DECLARATION

## A General Project Information

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Project Title: Kasson Erosion Repair Project

Lead Agency Name and Address: Reclamation District 2085  
451 Critchett Road  
Tracy, CA 95304

Contact Person and Phone Number: Russell c/o Spaletta Law PC  
PO Box 2660 Lodi CA 95241  
  
(209) 224-5568

Project Location: The project site is located on the west bank of the San Joaquin River in unincorporated southern San Joaquin County, California, north of the San Joaquin River Club resort. The site is located within Assessor's Parcel Number (APN) 241-380-05. The site is shown on the USGS Vernalis, California, 7.5-minute quadrangle map as located within the El Pescadero land grant in Township 3 South, Range 6 East.

Project Sponsor Name and Address: Reclamation District 2085  
451 Critchett Road  
Tracy, CA 95304

General Plan Designation: A/G (General Agriculture)

Zoning: AG-40

Description of Project: The project involves the regrading of approximately 280 linear feet of eroding bank on the left bank of the San Joaquin River and subsequent placement of rock slope protection. See detailed project description in Chapter 2.0.

Surrounding Land Uses and Setting: The project site is adjacent to the San Joaquin River and on the river side of a levee. The surrounding area is rural and agricultural.

Other Public Agencies Whose Approval is Required: Permits from the U.S. Army Corps of Engineers (Section 10 and Section 404), the California Department of Fish and Wildlife (Streambed Alteration Agreement), and the Central Valley Flood Protection Board (encroachment permit). Section 401 Water Quality Certification from the

Regional Water Quality Control Board is required in conjunction with Section 404 approval.

## B Environmental Factors Potentially Affected

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The environmental factors checked below may be significantly affected by this project, involving at least one impact that is a “Potentially Significant Impact” prior to mitigation. Mitigation measures have been prescribed that would avoid potential effects or reduce them to a less-than-significant level, as described in the checklist and narrative on the following pages, and in the Summary Table at the end of Chapter 1.0.

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

## C Lead Agency Determination

---

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- √ I find that, although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- I find that, although the proposed project could have a significant effect on the environment, nothing further is required 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.

*Reclamation District No. 2085*

RF  
*Russel Frink, Attorney at Law*

10/2/2017  
Date

# 1.0 INTRODUCTION

## 1.1 Project Brief

---

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) for the Kasson Erosion Repair Project (project). The project site is located on the west bank of the San Joaquin River in unincorporated San Joaquin County, California. The project is south of the City of Manteca, east of the City of Tracy, and approximately 1.5 miles northeast of the San Joaquin River Club community (Figures 1-1 through 1-4). The IS/MND has been prepared in compliance with the requirements of the California Environmental Quality Act (CEQA).

The project proponent, Reclamation District No. 2085 Kasson District (RD 2085), intends to control erosion of approximately 280 linear feet of the west bank of the San Joaquin River in southern San Joaquin County. The riverbank at the project site shows signs of mass wasting, which if left unattended would threaten the integrity of an adjacent levee and would potentially lead to a breach of the levee during a major storm event. The project proposes to regrade the slope of the riverbank at a horizontal/vertical ratio of 2.5:1. Rock slope protection (RSP) would be added to the regraded bank to reduce potential erosion. An oak tree and an elderberry shrub would be removed, along with other vegetation.

## 1.2 Purpose of Initial Study

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CEQA requires that public agencies document and consider the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the "CEQA Guidelines" (Title 14, Chapter 3 of the California Code of Regulations).

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects, as defined by CEQA, and to describe feasible mitigation measures that would avoid significant effects or reduce them to a level that is less than significant. If the Initial Study does not identify significant effects of the project, or identifies significant effects but also describes mitigation measures that would reduce these significant effects to a level that is less than significant, then the agency would prepare a Negative Declaration or a Mitigated Negative Declaration, respectively. If the project would involve significant effects that cannot be mitigated readily, then the agency must prepare an Environmental Impact Report (EIR). The agency may also decide to proceed directly with the preparation of an EIR without conducting an Initial Study.

The proposed project is a "project" as defined by CEQA and is not exempt from CEQA consideration. RD 2085 has determined that the project involves the potential for significant environmental effects and thus requires preparation of this Initial Study. The Initial Study describes the proposed project and describes its environmental setting; it discusses the potential environmental effects of the project and identifies feasible mitigation measures that would avoid the potentially significant environmental effects of the project or reduce them to a level that is less

than significant. The Initial Study considers the project's potential for significant environmental effects in the following subject areas:

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

The Initial Study for this project concludes that the project would have significant environmental effects on some of the above issues, but mitigation measures would avoid these effects or reduce them to a level that would be less than significant. As of the distribution of the IS/MND for public review, RD 2085 has accepted all of the recommended mitigation measures. As a result, RD 2085 has prepared a Mitigated Negative Declaration and notified the public of the District's intent to adopt the IS/MND. The time available for comment on the IS/MND is shown in the Notice of Intent.

### 1.3 Project Background

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RD 2085 levee system is located on the west bank of the San Joaquin River from the Durham Bridge to the Banta Carbona intake. The District's western boundary is Kasson Road. RD 2085 consists of approximately 1,738 acres of primarily agricultural land, with a smaller portion devoted to residences. The RD 2085 boundaries include the San Joaquin River Club, a 300-acre residential development with a clubhouse, recreational facilities, and 350 home sites (RD 2085 2015).

RD 2085 maintains approximately 6.3 linear miles of levees, much of it along the west bank of the San Joaquin River. There are also three dry-land levees within the Reclamation District (RD 2085 2015). A levee along the San Joaquin River is adjacent to a portion of the riverbank that has shown signs of mass wasting – erosion caused by the San Joaquin River during times of high water volume and flow. If left unattended, the mass wasting would continue and would eventually threaten the structural integrity of the adjacent levee, leading to a possible breach during a major storm event. A breach would flood adjacent agricultural land and residences and potentially could flood the San Joaquin River Club to the south.

The California Department of Water Resources (DWR) has determined that RD 2085 is eligible for funding of this project under the California Disaster Preparedness and Flood Prevention Bond Act of 2006 through the Flood System Repair Project (FSRP). The primary goal of the FSRP is to assist

Local Maintaining Agencies, such as reclamation districts, in evaluating, repairing, rehabilitating, reconstructing, or replacing levees, weirs, bypasses, and other facilities of the State Plan of Flood Control determined to be flood risk reduction projects. After field visits by its representatives, DWR sent in 2014 an amended Notice of Eligibility to RD 2085 indicating that three critical erosion sites were eligible for FSRP funding, including the proposed project site (Kleinfelder 2016).

## 1.4 Environmental Evaluation Checklist Terminology

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The project's potential environmental effects are evaluated in the Environmental Evaluation Checklist shown in Chapter 3. The checklist includes a list of environmental considerations against which the project is evaluated. For each question, RD 2085 determines whether the project would involve: 1) a Potentially Significant Impact, 2) a Less Than Significant Impact, 3) a Less Than Significant Impact With Mitigation Incorporated, or 4) No Impact.

A Potentially Significant Impact occurs when there is substantial evidence that the project would involve a substantial adverse change to the physical environment, i.e., that the environmental effect may be significant, and mitigation measures have not been defined that would reduce the impact to a less-than-significant level. If there are one or more Potentially Significant Impact entries in the Initial Study, then an EIR is required.

A Less Than Significant Impact occurs when the project would involve effects on a particular resource, but the project would not involve a substantial adverse change to the physical environment, and no mitigation measures are required.

An environmental effect that is Less Than Significant With Mitigation Incorporated is a Potentially Significant Impact that can be avoided or reduced to a level that is less than significant with the application of mitigation measures identified in the Initial Study.

A determination of No Impact is self-explanatory.

This IS/MND prescribes mitigation measures for the potentially significant environmental effects of the project. Mitigation measures that are not already established in law and practice are identified in this document.

## 1.5 Summary of Environmental Effects and Mitigation Measures

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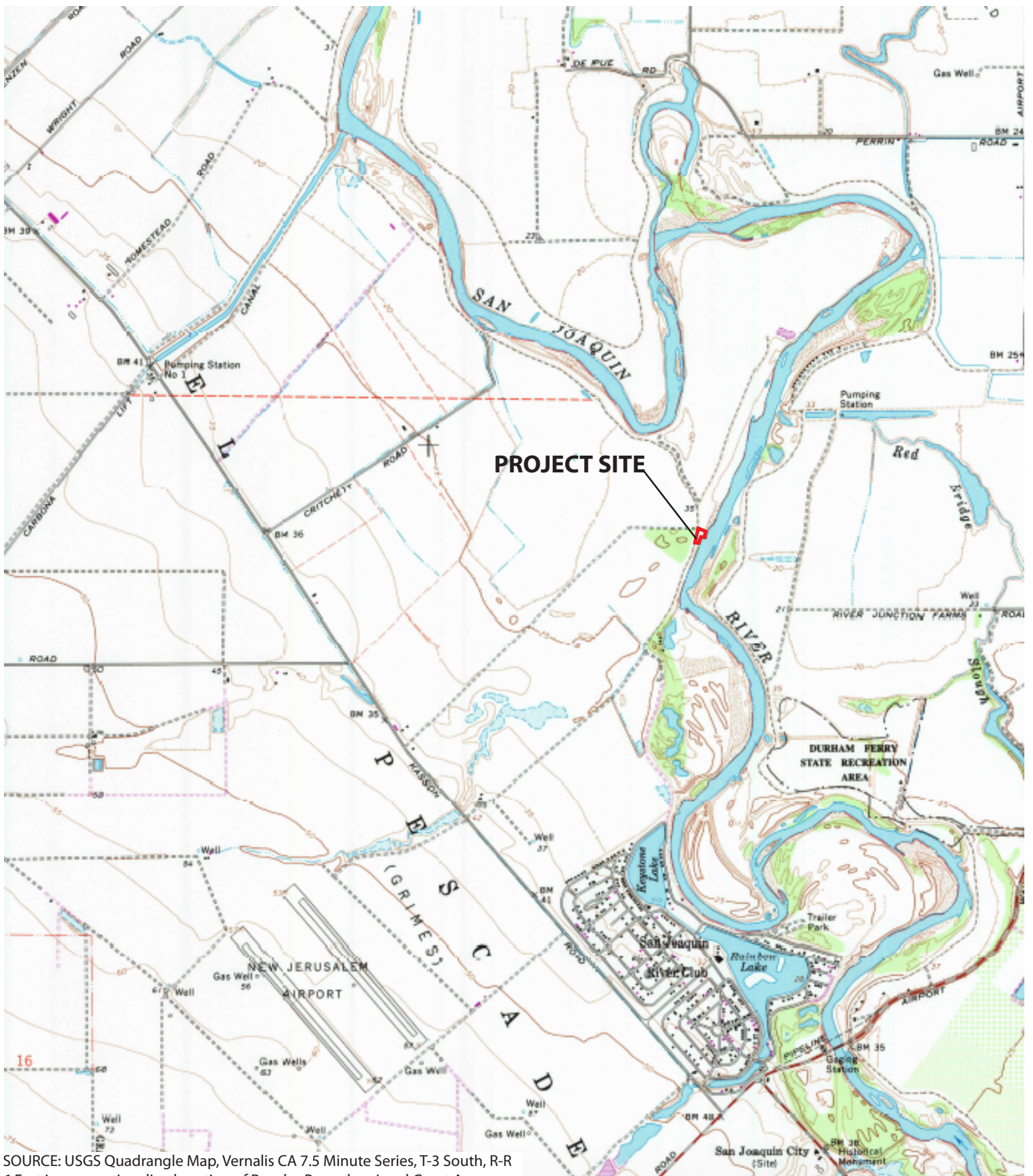
Table 1-1, at the end of this chapter, is a summary of the environmental impacts of the proposed project and mitigation measures. The table summarizes the results of the Environmental Checklist Form and associated narrative discussion in Chapter 3.0. The potential environmental impacts are listed in the left-most column of this table. The level of significance of each impact is indicated in the second column. Mitigation measures proposed to minimize potentially significant impacts are shown in the third column, and the significance of the impact after mitigation measures are applied is shown in the fourth column.







SOURCE: Google Maps



SOURCE: USGS Quadrangle Map, Vernalis CA 7.5 Minute Series, T-3 South, R-R 6 East in a unsectionalized portion of Rancho Pescadero Land Grant Area.





**TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
<b>3.1 AESTHETICS</b>			
a) Scenic Vistas	NI	None required	-
b) Scenic Resources	LS	None required	-
c) Visual Character and Quality	LS	None required	-
d) Light and Glare	NI	None required	-
<b>3.2 AGRICULTURE AND FORESTRY RESOURCES</b>			
a) Agricultural Land Conversion	NI	None required	-
b) Agricultural Zoning and Williamson Act	NI	None required	-
c, d) Timberland Conversion and Zoning	NI	None required	-
e) Indirect Conversion of Farmland and Forest Land	NI	None required	-
<b>3.3 AIR QUALITY</b>			
a) Air Quality Plan Consistency	NI	None required	-
b) Violation of Air Quality Standards	LS	None required	-
c) Cumulative Emissions	NI	None required	-
d) Exposure of Sensitive Receptors	LS	None required	-
e) Odors	NI	None required	-
<b>3.4 BIOLOGICAL RESOURCES</b>			
a) Special-Status Species	PS	Applicable avoidance and minimization measures in Section 2.5 of the IS/MND, and the following:	LS



TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		<p>BIO-1: In order to avoid take of protected raptors and migratory birds between February 1 and August 31, an initial pre-construction nest survey shall be conducted by a CDFW-approved biologist. The survey shall be conducted within fifteen (15) days prior to the beginning of construction activities in order to identify active nests within 500 feet of the project work areas and as to raptors' active nests within a quarter-mile (1,320 feet) of the project work areas. The surveys shall incorporate methodologies from CDFW's 1994 Staff Report regarding Mitigation for Impacts to Swainson's Hawks (<i>Buteo swainsoni</i>) in the Central Valley of California and the Swainson's Hawk Technical Advisory Committee 2000 survey guidelines. If active raptor nests are found within 1,320 feet of the work area or other active nests within 500 feet of the work area, a temporary buffer of 1,320 feet and 500 feet, respectively, shall be established and an on-site biologist/monitor experienced with raptor behavior shall be retained by the Reclamation District. The biologist shall monitor the nest(s) and consult with the CDFW to determine the buffers to be applied and best course of action to avoid nest abandonment or take of individuals. The necessity and extent for temporal construction restrictions shall be determined by CDFW. CDFW may determine it is necessary for a designated biologist/monitor to be onsite daily while construction-related activities are within or near buffer areas. The on-site biologist/monitor shall have authority to stop work if raptors are exhibiting agitated behavior such as defensive flights at intruders, unusual getting up from a brooding position or unusual flying off the nest. If during the nesting season there is a lapse in project-related work of fifteen (15) days or longer, another focused survey shall be performed and the results sent to CDFW prior to resuming work.</p>	

TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		<p>BIO-2: Preconstruction surveys for burrowing owl shall be undertaken for construction activities between February 1 and August 31. The surveys shall incorporate methodologies from CDFW's 2012 Staff Report on Burrowing Owl Mitigation and the California Burrowing Owl Consortium 1993 Burrowing Owl Survey Protocol and Mitigation Guidelines. In the event that nesting owls are located within 250 feet of the work areas, temporal construction restrictions may be necessary to eliminate the potential for noise disturbance to the burrowing owls. The necessity and extent for temporal construction restrictions as to nesting burrowing owls is dependent upon location of the nest with respect to construction and shall be determined by CDFW as described above.</p> <p>BIO-3: Any vegetation removal during the avian nesting season (February 1 through August 31) shall be immediately preceded by a survey. If active nests are found, adequate marking of the nest site shall be provided and vegetation removal in the vicinity of the nest shall be delayed until the young fledge.</p> <p>BIO-4: If a Pacific pond turtle is observed, it should be left alone to move out of the area on its own or may be relocated by a qualified biologist to a suitable aquatic habitat outside of the work area. The Reclamation District shall exercise measures to avoid direct injury to Pacific pond turtle, as well as measures to avoid areas where they are observed to occur. Pre-construction surveys for Pacific pond turtle and their nests will be conducted for construction between April 1 and October 31. This will involve a search for nests in uplands on the landside of the levees. If nest sites are located, the Reclamation District will notify CDFW and a 50-foot buffer area around the nest shall be staked. Work will be delayed until hatching is complete and the young have left the nest site.</p>	

TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		<p>BIO-5: Off-site compensation for the removal of the on-site blue elderberry shrub and associated potential take of valley elderberry longhorn beetle habitat will be accomplished by transplanting the elderberry shrub to a USFWS-approved mitigation bank and purchase of two elderberry mitigation credits at the bank.</p> <p>BIO-6: A biological worker awareness training program shall be implemented to educate the construction crews of the biological diversity within the project area. The worker awareness program shall include a presentation on the life history and legal status of potentially occurring special-status species and distribution of informational packages to each worker. While all of the species in Table 4 of the biological resource assessment (see Appendix D of this IS/MND) will be at least briefly addressed, the focal species of the worker awareness training program will be Swainson's hawk, burrowing owl, Pacific pond turtle, valley elderberry longhorn beetle, and Central Valley steelhead.</p>	
b) Riparian and Other Sensitive Habitats	PS	<p>Applicable avoidance and minimization measures in Section 2.5 of the IS/MND, and the following:</p> <p>BIO-7: Off-site compensatory mitigation for impacts to riverine habitats and associated special-status fish species shall be provided at an approved mitigation bank. The project is within the service area of the Cosumnes Floodplain Mitigation Bank, and the purchase of 0.27 acres of Flooded Riparian credits would provide mitigation for impacts to 0.09 acres of Waters of the U.S. and associated impacts to special-status fish and riparian habitats. In the event credits are not available at the Cosumnes Floodplain Mitigation Bank, equivalent compensatory mitigation would be provided at an alternate agency-approved bank.</p>	LS



TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		BIO-8: The project shall implement standard Best Management Practices for vegetation protection and management of invasive species including fencing of avoided valley oaks and re-seeding disturbed areas with a seed-mix approved by CDFW.	
c) Wetlands and Waters of the U.S.	PS	<p>Applicable avoidance and minimization measures in Section 2.5 of the IS/MND, and the following:</p> <p>BIO-9: Minimize impacts to potentially jurisdictional Waters of the U.S. and wetlands by restricting all work to the project footprint and adjacent temporary construction areas, as proposed. Permits from USACE, CDFW, RWQCB, and CVFPB shall be secured prior to the placement of any fill material within the jurisdictional Waters of the U.S. The Reclamation District shall implement all permit conditions and mitigation measures related to the protection of sensitive aquatic habitats and species, including any conditions resulting from USACE Section 7 consultations with USFWS and/or the National Marine Fisheries Service (NMFS), such as project scheduling and implementing appropriate construction Best Management Practices.</p>	LS
d) Fish and Wildlife Movement	PS	<p>Applicable avoidance and minimization measures in Section 2.5 of the IS/MND; Mitigation Measures BIO-1, BIO-3, BIO-6, BIO-7, and BIO-9; and the following:</p> <p>BIO-10: Project construction in the water shall be scheduled between August 1 and October 31 to reduce the potential for sedimentation of the San Joaquin River, and associated impacts to aquatic resources including special-status fish that occur in the San Joaquin River or downstream waterways on a seasonal basis. This work window may be adjusted through consultation with CDFW, NMFS and/or USFWS. During the late-summer or fall work window, the lower edge of the erosion repair site</p>	LS

TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		will either be dry or inundated with shallow water (estimated depth less than one foot) during construction. A silt curtain or dewatering devices shall be installed during project construction to minimize the potential for sediment release into the river and protect salmon that may be in the river from elevated levels of background turbidity in the vicinity of the repair site.	
e) Local Biological Requirements	PS	Applicable avoidance and minimization measures in Section 2.5 of the IS/MND, and Mitigation Measure BIO-8.	LS
f) Conflict with Habitat Conservation Plans	LS	None required	-
<b>3.5 CULTURAL RESOURCES</b>			
a) Historical Resources	NI	None required	-
b) Archaeological Resources	PS	CULT-1: If any subsurface cultural or paleontological resources are encountered during construction of the project, all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist, or paleontologist as appropriate, can examine these materials, make a determination of their significance and, if significant, recommend further mitigation measures that would reduce potential effects to a level that would be less than significant. Such measures could include 1) preservation in place or 2) excavation, recovery and curation by qualified professionals. The Reclamation District shall be responsible for retaining qualified professionals, implementing recommended mitigation measures and documenting mitigation efforts in a written report, consistent with the requirements of the State CEQA Guidelines.	LS
c) Paleontological Resources	PS	Mitigation Measure CULT-1.	LS

TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
d) Human Burials	LS	None required	-
<b>3.6 GEOLOGY AND SOILS</b>			
a-1) Fault Rupture Hazards	NI	None required	-
a-2, 3) Seismic Hazards	LS	None required	-
a-4) Landslides	NI	None required	-
b) Soil Erosion	PS	Applicable avoidance and minimization measures in Section 2.5 of the IS/MND.	LS
c) Geologic Instability	LS	None required	-
d) Expansive Soils	NI	None required	-
e) Adequacy of Soils for Sewage Disposal	NI	None required	-
<b>3.7 GREENHOUSE GAS EMISSIONS</b>			
a) Project GHG Emissions	LS	None required	-
b) Consistency with GHG Reduction Plans	NI	None required	-
<b>3.8 HAZARDS AND HAZARDOUS MATERIALS</b>			
a) Transport, Use , and Disposal of Hazardous Materials	NI	None required	-
b) Releases of Hazardous Materials	LS	None required	-
c) Release of Hazardous Materials near Schools	NI	None required	-
d) Hazardous Materials Sites	NI	None required	-
e, f) Airport and Airstrip Operations	NI	None required	-

TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
g) Emergency Response and Emergency Evacuations	NI	None required	-
h) Wildland Fire Hazards	NI	None required	-
<b>3.9 HYDROLOGY AND WATER QUALITY</b>			
a, f) Surface Waters and Water Quality	PS	Applicable avoidance and minimization measures in Section 2.5 of the IS/MND.	LS
b) Groundwater Supplies	NI	None required	-
c, d) Drainage Patterns	NI	None required	-
e) Runoff	LS	None required	-
g, h) Flooding Hazards	NI	None required	-
i) Dam and Levee Failure Hazards	LS	None required	-
j) Seiche, Tsunami, and Mudflow Hazards	NI	None required	-
<b>3.10 LAND USE AND PLANNING</b>			
a) Division of Established Communities	NI	None required	-
b) Conflict with Adopted Actions for Environmental Effects	LS	None required	-
c) Conflict with Habitat Conservation Plans	LS	None required	-
<b>3.11 MINERAL RESOURCES</b>			
a, b) Availability of Mineral Resources	NI	None required	-
<b>3.12 NOISE</b>			

TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
a) Exposure to Noise Exceeding Local Standards	LS	None required	-
b) Exposure to Groundborne Vibrations	NI	None required	-
c) Permanent Increase in Ambient Noise	NI	None required	-
d) Temporary or Periodic Increase in Ambient Noise	LS	None required	-
e, f) Noise from Public Airports and Private Airstrips	NI	None required	-
<b>3.13 POPULATION AND HOUSING</b>			
a) Population Growth Inducement	NI	None required	-
b, c) Displacement of Housing or People	NI	None required	-
<b>3.14 PUBLIC SERVICES</b>			
a) Fire Protection	NI	None required	-
b) Police Protection	NI	None required	-
c) Schools	NI	None required	-
d, e) Parks and Other Public Facilities	NI	None required	-
<b>3.15 RECREATION</b>			
a, b) Recreational Facilities	NI	None required	-
<b>3.16 TRANSPORTATION/TRAFFIC</b>			
a) Consistency with Applicable Transportation Plans, Ordinances, and Policies	NI	None required	-
b) Conflict With Congestion Management Program	NI	None required	-

**TABLE 1-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
c) Air Traffic Patterns	NI	None required	-
d) Traffic Hazards	NI	None required	-
e) Emergency Access	NI	None required	-
f) Conflict with Non-Motor Vehicle Transportation Plans	NI	None required	-
<b>3.17 TRIBAL CULTURAL RESOURCES</b>			
a, b) Tribal Cultural Resources	LS	None required	-
<b>3.18 UTILITIES AND SERVICE SYSTEMS-</b>			
a, e) Wastewater Systems	NI	None required	-
b, d) Water Systems and Supply	NI	None required	-
c) Stormwater Systems	NI	None required	-
f, g) Solid Waste Services	NI	None required	-
<b>3.19 MANDATORY FINDINGS OF SIGNIFICANCE</b>			
a) Findings on Biological and Cultural Resources	PS	Mitigation measures in Sections 3.4 and 3.5.	LS
b) Findings on Cumulatively Considerable Impacts	LS	None required	-
c) Findings on Adverse Effects on Human Beings	NI	None required	-

## 2.0 PROJECT DESCRIPTION

### 2.1 Project Brief

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The project is for erosion repair of approximately 280 linear feet of the west bank of the San Joaquin River in southern San Joaquin County. The riverbank shows signs of erosion and mass wasting. If the bank remains unattended, further erosion would threaten the integrity of a nearby levee and could potentially lead to a breach during a major storm event.

The project proponent, RD 2085, proposes to repair the erosion mentioned above by regrading the slope of the riverbank at a horizontal/vertical ratio of 2.5:1 to conform to the theoretical levee slope that underlies the bank. RSP would be placed on the regraded area to reduce potential future erosion. Regrading and RSP placement would occur both above and below the ordinary high water mark (OHWM) of the San Joaquin River, work below which would require a permit from the U.S. Army Corps of Engineers (USACE). The project would involve a work area of 0.35 acres and an additional 0.32 acres of construction disturbance area.

The project would require the removal of an oak tree, an elderberry shrub, and other vegetation, as well as disturbance of the riverbank and channel. The project has been designed in consultation with regulatory agencies to minimize the removal of riparian vegetation and impacts on special-status species and shallow water habitat. The project includes measures to avoid, minimize, and otherwise mitigate potential biological and other environmental effects, as described in Section 2.5 below.

### 2.2 Project Location

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The project site is located on the west bank of the San Joaquin River in unincorporated San Joaquin County, California, south of the City of Manteca, east of the City of Tracy, and approximately 1.5 miles northeast of the San Joaquin River Club resort (see Figures 1-1 through 1-4). It is located within Assessor's Parcel Number (APN) 241-380-05. The site is accessible from Kasson Road via existing farm roads.

The site is shown on the USGS Vernalis, California, 7.5-minute quadrangle map as located within the El Pescadero land grant. The site is within an area not surveyed under the Public Land Survey System, but is located in Township 3 South, Range 6 East, Mt. Diablo Base and Meridian. Approximate site latitude is 37° 42' 11" North, and approximate site longitude is 121° 16' 30" West.

### 2.3 Project Objectives

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The objective of the project is to prevent further erosion of a 280-linear foot section of a bank along the San Joaquin River. The project would protect the structural integrity of a nearby levee, thereby reducing the probability of a breach and improving flood protection for residences and agricultural lands.

## 2.4 Project Details

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The project site consists of the area between Stations 131+00 and 133+80 (RD 2085 Levee Mile 2.48 – 2.54) along the west bank of the San Joaquin River along with the staging area, as shown in Figure 2-1 and on Sheet 3 of the plan set prepared by Kjeldsen, Sinnock and Neudeck (KSN Plan Set), available in Appendix A of this IS/MND. A nearby levee is constructed along a relatively level river-side bench that ranged 40-60 feet west of the river edge during non-peak flows in 2016. Both the land and river sides of the levee support tree and shrub vegetation; river-side vegetation is riparian forest consisting mostly of alder trees and a few oak trees. A broader section of riparian forest ranging up to 100 feet in width is located between the northern end of the project site and the proposed staging area. Scattered trees and shrubs, including three mature oak trees and a large elderberry shrub, are located on the project site.

The river has eroded the bench area by 20 feet or more, forming a steep to vertical bank, as shown in Photo 2-1 and on KSN Plan Set Sheets 5-7. Erosion has not yet encroached on the theoretical levee prism as shown in plan cross-sections, but continued erosion eventually would threaten the stability of the nearby levee.



*Photo 2-1 Mass wasting at project site. Levee visible in upper right corner.*

The project would involve regrading of the existing riverbank and placement of bedding and RSP within a work area of 0.35 acres, as shown in Table 2-1. The riverbank would be regraded to a uniform slope of approximately 2.5:1 that conforms to the slope of the theoretical levee prism. Proposed regrading would extend approximately from the toe of the existing levee east to the limits of regrading shown on Sheet 4 of the KSN Plan Set. A more detailed breakdown of the regrading by station is shown in Appendix B of this IS/MND. The total amount of material that would be removed would be 3,114 cubic yards. A small portion of the cut material would be used in the grading of the slope, but the amount would be negligible. Cut material would be removed from the project site by the contractor to a permitted off-site disposal area.



TABLE 2-1  
PROPOSED PROJECT AREA DISTURBANCE AND CUT AND FILL

	Above OHWM	Below OHWM	TOTAL
Work Area (acres)	0.26	0.09	0.35
Additional Disturbance (acres)	0.32	0.01	0.33
<b>TOTAL ACRES</b>	<b>0.58</b>	<b>0.10</b>	<b>0.68</b>
Cut (cubic yards)	2,353	761	3,114
Bedding (cubic yards)	150	127	277
Rock Slope Protection (cubic yards)	600	457	1,057
<b>TOTAL CUBIC YARDS</b>	<b>3,103</b>	<b>1,345</b>	<b>4,448</b>

Source: Kjeldsen, Sinnock and Neudeck.

Proposed cross-sections showing the amount of earthmoving at station intervals along the project site (see Figure 2-2) are shown in Sheets 5-7 of the KSN Plan Set in Appendix A of this IS/MND. Sheet 5 illustrates cross sections at the northern end of the project site, Sheet 6 shows cross sections in the middle, and Sheet 7 illustrates cross sections at the southern end of the project site.

The regrading would involve work above and below the OHWM of the San Joaquin River, the elevation of which is 13.77 feet above mean sea level at the project site. Within the work area, about 75% (0.26 acres) would be above the OHWM and the remainder (0.09 acres) below the OHWM. Of the total amount of cut material, 2,353 cubic yards would be above the OHWM and 761 cubic yards would be below the OHWM. Table 2-1 shows overall quantities above and below the OHWM.

The regrading would establish a uniform subgrade on which will be placed aggregate bedding and RSP. Approximately 6 inches of aggregate bedding material would be placed on the graded bank to prepare a base for the placement RSP. RSP, consisting of clean quarry stone, would be placed on the bedding material to a minimum depth of 24 inches. Total volume of bedding and RSP would be 750 cubic yards above the OHWM and 584 cubic yards below the OHWM (see Table 2-1). Bedding and RSP material would be obtained by the contractor from commercial sources off-site. Movement of materials and equipment between the work area and the existing levee road would involve an additional disturbance of 0.33 acres, of which 0.32 acres would be above the OHWM and 0.01 acres below the OHWM (see Table 2-1).

The project has been designed to avoid, minimize, and otherwise mitigate potential biological effects to the extent feasible. Proposed plans were developed jointly by RD 2085 and DWR engineers to minimize the removal of riparian forest and potential impacts on fishery habitat. Project construction would require the removal of existing shrubbery and low-growing vegetation within the work area and at access points from the levee to the work area. It also would require the removal of one large elderberry shrub at the southern end of the project site and one mature oak tree near the center of the site (see Figure 2-1). Despite efforts to avoid removal of the elderberry shrub, avoidance was found to be infeasible. As discussed in Section 2.5 below, the project would include mitigation for removal of the elderberry shrub and for other biological impacts that could not be avoided or sufficiently minimized. Other shrubs and mature trees in the vicinity would be preserved.

Construction access would be provided by existing levee-top and farm roads, including the road on the top of the nearby levee. Some of the proposed access roads are privately owned, so permission from the landowners for their use would be required prior to start of construction. The project would be constructed using conventional equipment, including excavators, trucks, compactors, loaders and graders, and is expected to be actively managed from the levee road. Construction would occur entirely within the waterside portion of the levee and would not require acquisition of additional land. The project would not involve excavation, grading, or other effects on the existing nearby levee. A staging area would be located approximately 100 feet north of the work area, as shown on Sheet 3 of the KSN Plan Set in Appendix A. The staging area consists of approximately 1.1 acres of previously disturbed land surrounded by existing levee and farm roads. No vegetation removal would be required in this area.

## 2.5 Avoidance and Minimization Measures

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As previously noted, the project has been designed to avoid and/or minimize potential environmental impacts, particularly on biological resources. Nonetheless, the project would involve the disturbance of 0.58 acres of upland habitat, the disturbance of 0.1 acres of seasonally submerged land below the OHWM, and the removal of one large elderberry shrub and one mature oak tree. Where impacts cannot be avoided or sufficiently minimized, RD 2085 has incorporated mitigation measures into the project to reduce net project impacts to a level that is less than significant. Proposed mitigation measures include the following:

- Construction access via adjacent existing farm roads.

- Minimization of overall construction disturbance area.

- Minimization of project footprint in jurisdictional Waters of the U.S.

- Staging area to be located in existing disturbed area.

- Protection of oak trees to be retained in or near construction area with construction fencing.

- Construction scheduling during late summer or fall to avoid potential impacts to special-status fish species.

- If work is required in the wetted area of the San Joaquin River, installation of siltation screen or dewatering devices to prevent sediment release.

- Pre-construction surveys for potentially occurring special-status species (e.g. Swainson's hawk, burrowing owl, nesting birds, western pond turtle).

- Implementation of Best Management Practices (BMPs) during and after construction to minimize potential erosion and sedimentation.

- Revegetation of disturbed areas with native non-invasive plant species following construction

- Mitigation for impacts to potential habitat for the valley elderberry longhorn beetle, either by transplanting the existing elderberry shrub and purchasing mitigation credits or, if transplanting is not feasible, purchasing mitigation credits only at a U.S. Fish and

Wildlife Service (USFWS) approved mitigation bank established for valley elderberry longhorn beetle conservation, such as the French Camp Conservation Bank.

Mitigation for impacts to Waters of the U.S., riverine habitats, and associated special-status species at a mitigation bank approved by the USACE, the National Marine Fisheries Service (NMFS), the California Department of Fish and Wildlife (CDFW), and any other agencies with jurisdiction established for conservation of these habitats, such as the Cosumnes Floodplain Mitigation Bank.

## 2.6 Permits and Approvals

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RD 2085 is the Local Maintaining Agency for the nearby levee; it is the agency responsible for levee maintenance and repair. Approval from the RD 2085 Board would be required to proceed with the project. The approval must be preceded by adoption of this IS/MND, along with a Mitigation Monitoring and Reporting Program to ensure implementation of the mitigation measures described in the IS/MND.

The majority of project funding would be provided by DWR. DWR would provide 85% of project funding through its FSRP, and RD 2085 would provide the remaining 15%. Proposed funding for the project requires an agreement with DWR; RD 2085 and DWR reached an agreement on the project in 2014.

Project construction and operation would require permits and approvals from federal and state agencies, as listed below:

U.S. Army Corps of Engineers (USACE). Rivers and Harbors Act Section 10 permit for work in navigable waters, and Clean Water Act Section 404 permit for dredging and/or placement of fill in Waters of the United States. The project would involve work below the OHWM, which defines the upper boundary of the USACE jurisdiction. USACE approval will include an endorsement from the U.S. Coast Guard.

California Department of Fish and Wildlife (CDFW). Fish and Game Code Section 1600 Streambed Alteration Agreement for work in the channel, bed and/or banks of a State-regulated waterway.

Regional Water Quality Control Board (RWQCB), Central Valley Region. Water Quality Certification under Section 401 of the Clean Water Act, required in connection with the USACE Section 404 permit.

Central Valley Flood Protection Board (CVFPB). Encroachment permit for work on and near regulated streams and levees.

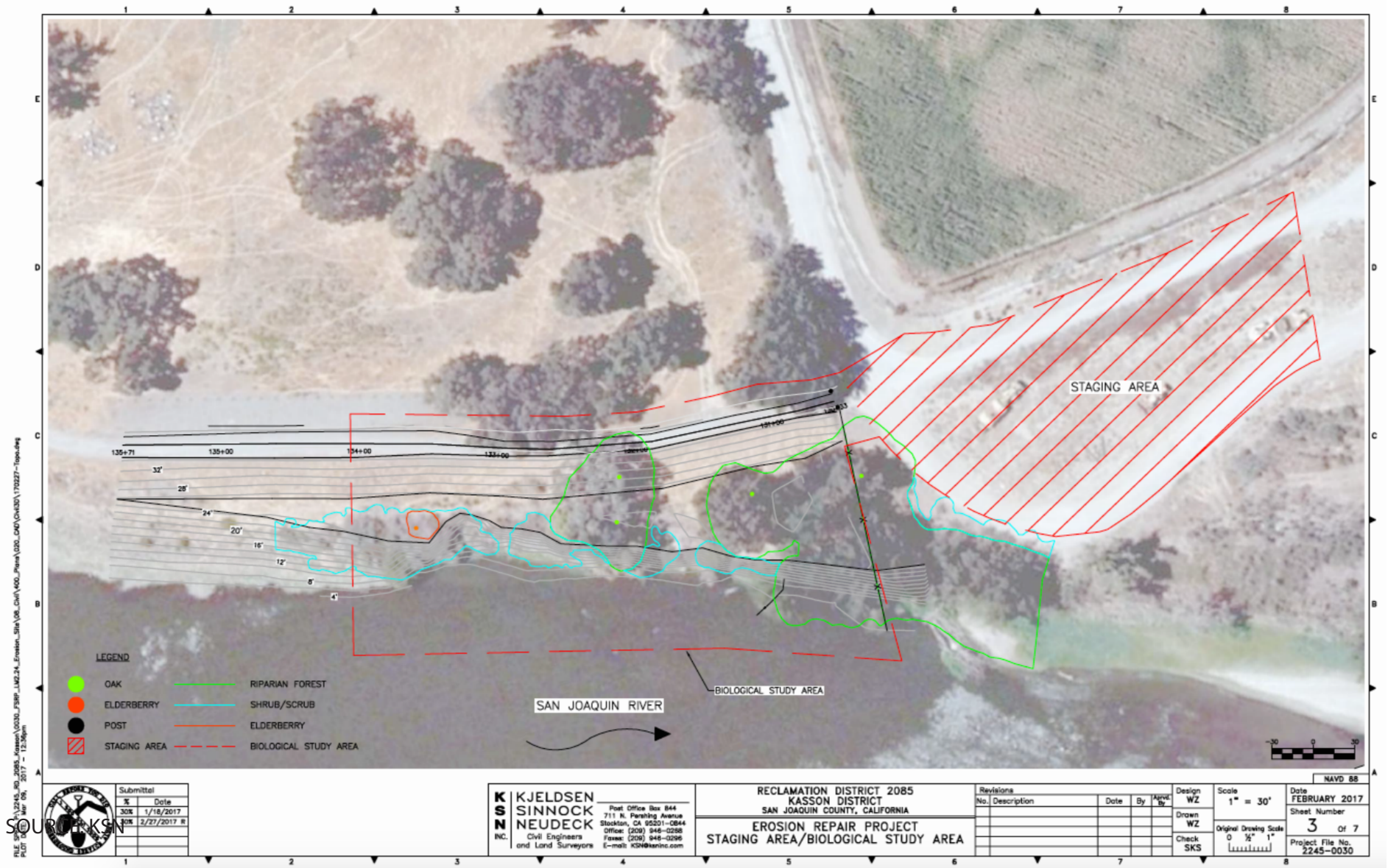
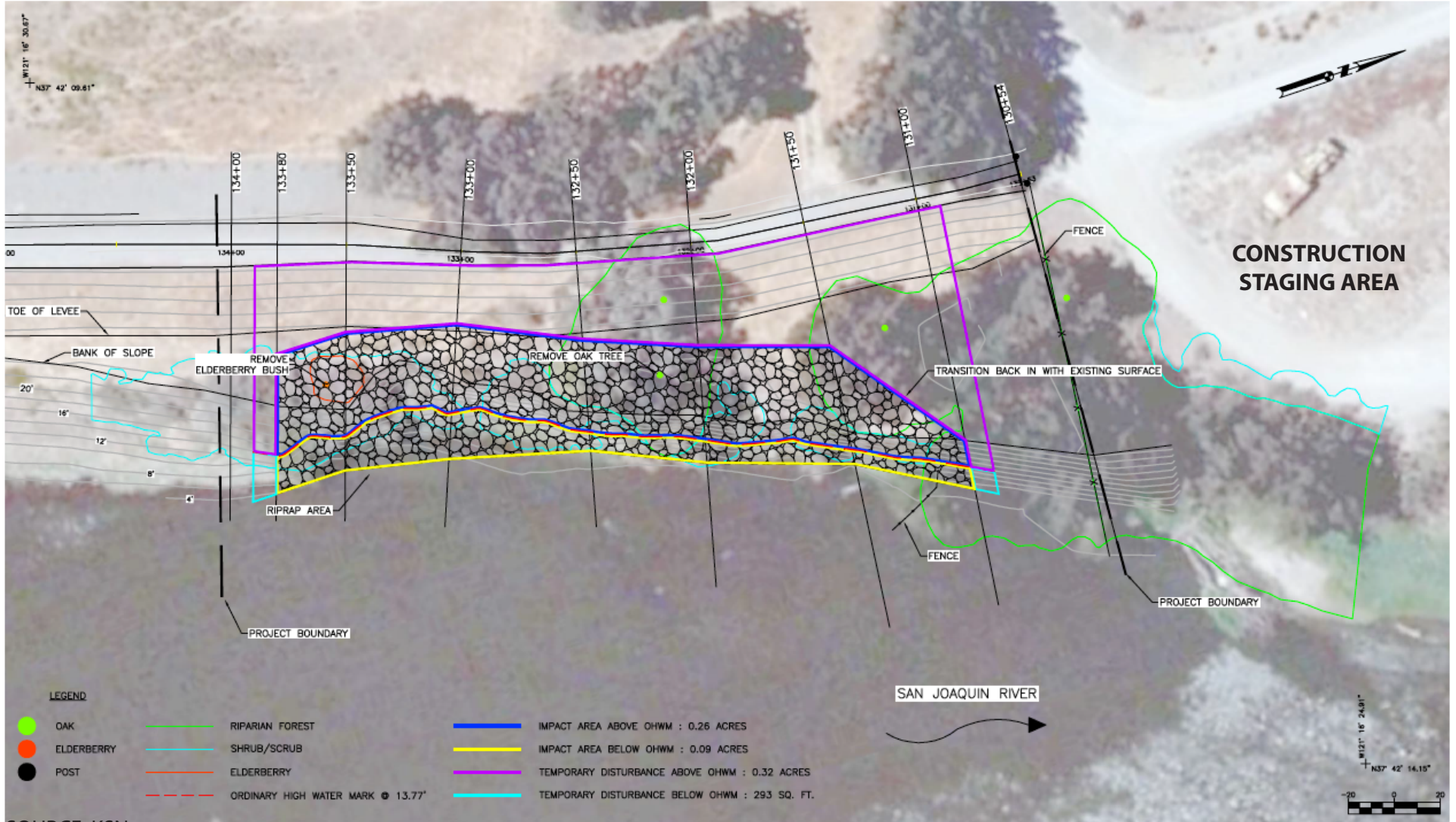


Figure 2-1  
PROJECT SITE AND STAGING AREA





SOURCE: KSN

# 3.0 ENVIRONMENTAL CHECKLIST FORM

## 3.1 AESTHETICS

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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?				√

## NARRATIVE DISCUSSION

### Environmental Setting

The project site is a predominantly rural area located east of Tracy in southern San Joaquin County. Agricultural fields of row crops, orchards and vineyards dominate the landscape. The project site and vicinity contain tree groves and individual trees, shrubs, and other riparian vegetation. Man-made structures in the area consist primarily of scattered rural residences and farm buildings. The San Joaquin River Club, a private club with home sites, is approximately 1.5 miles southwest of the project site. In the distance, views of the Coast Ranges to the west and the Sierra Nevada to the east constitute the major scenic vistas, when visibility conditions permit.

San Joaquin County has designated 26 local roadways within the County as scenic routes (San Joaquin County 2016). None of these local scenic routes are located in the vicinity. No State scenic highways have been designated in the vicinity (Caltrans 2015). There are no sources of light at the project site, nor are there any structures that produce glare.

### Environmental Impacts and Mitigation Measures

#### a) Scenic Vistas.

The project would not involve any interference with or permanent or long-term changes to scenic vistas in the vicinity of project site. The project improvements would be below the top of the nearby levee, so they would not affect existing views of the Coast Ranges and Sierra Nevada. The project would have no impact on scenic vistas.

b) Scenic Resources.

There are no scenic highways in the vicinity. Trees are located on the project site, and the project would require the removal of one oak tree. Other existing mature trees on and in the vicinity of the site would remain. Section 3.4, Biological Resources, discusses impacts of tree removal. No other scenic resources are located on the project site. Impacts on scenic resources are considered less than significant.

c) Visual Character and Quality.

The project would involve temporary effects on aesthetics resulting from construction activities. For recreational users in open water areas in the San Joaquin River, the aesthetic effects of construction would consist of the presence of conventional construction equipment, materials and stockpiled soils in the land portions of the project. Recreational boaters in close proximity to the in-channel portion of project construction may see short-lived turbid water.

Views the project site would from nearby segments of the riverbank would be modified by the project. While most of these segments are naturally vegetated, the project site would be regraded and covered with RSP and have some of its existing vegetation removed, including one oak tree. The work would only be visible from the river and would not be visible to the general public on the land side. The project also would retain most of the existing mature trees, requiring the removal of only one oak tree. Section 3.4, Biological Resources, discusses impacts on oak trees in more detail. Visual character impacts are considered less than significant.

d) Light and Glare.

The project would not install lighting or structures with reflective materials or coatings. Because of this, the project would not affect day or nighttime views in the project vicinity. The project would have no impact related to light or glare.

### 3.2 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?

			√

## NARRATIVE DISCUSSION

### Environmental Setting

Agriculture is the predominant land use in San Joaquin County, with approximately 88.4% of the county's land area in farms (U.S. Department of Agriculture 2014). As noted in Section 3.1, Aesthetics, agricultural fields of row crops, orchards and vineyards are predominant features in the area.

The Important Farmland Maps, prepared by the California Department of Conservation as part of the Farmland Mapping and Monitoring Program, designate the viability of lands for farmland use, based on the physical and chemical properties of the soils. The maps categorize farmland, in decreasing order of soil quality, as "Prime Farmland," "Farmland of Statewide Importance," and "Unique Farmland." Collectively, these categories are referred to as "Farmland" in the Environmental Checklist in CEQA Guidelines Appendix G. According to the 2014 Important Farmland Map of San Joaquin County, the project site itself is classified as Nonagricultural and Natural Vegetation. Most of the surrounding area is classified as Prime Farmland, with some Farmland of Statewide Importance and Unique Farmland. Land classified as Rural Residential Land, Confined Animal Agriculture, and Urban and Built-Up Land is also found in the vicinity, mainly along Kasson Road.

The Williamson Act is State legislation that seeks to preserve farmland by offering property tax breaks to farmers who sign a contract pledging to keep their land in agricultural use. Neither the project site nor the proposed staging area is on land under a Williamson Act contract.

Although there is a grove of trees adjacent to and north of the project site, there are no forest lands designated by public agencies either on the project site or in San Joaquin County. Because of this, forestry resources will not be discussed further in this document.

### Environmental Impacts and Mitigation Measures

#### a) Agricultural Land Conversion.

The project proposes to repair erosion along the bank of the San Joaquin River. The repair work would not encroach on the Prime Farmland on the opposite side of the levee near the project site. The project would not result in any conversion of Farmland to nonagricultural use, and so would have no impact on this issue.

#### b) Agricultural Zoning and Williamson Act.

While the parcel on which the project is located is zoned for agricultural use, no agricultural operations occur on the parcel. Levees that protect agricultural lands are an accepted land use in an agricultural area. No portion of the project site, including the staging area, is subject to a



Williamson Act contract. The project would not conflict with agricultural zoning or a Williamson Act contract, and so would have no impact on this issue.

c, d) Forest Land Conversion and Zoning.

As noted above, there are no designated forest lands on the project site or in the vicinity. The project would have no impact on forest lands.

e) Indirect Conversion of Farmland and Forest Land.

As a project confined to the riverbank, the project would not conflict with nor have an adverse effect on the ongoing and continued use of agricultural land in the project vicinity. The project would not facilitate development or conversion of surrounding lands, so it would not contribute directly or indirectly to conversion of off-site farmland. As there are no forest lands in the area, the project would not convert forestland to non-forest use. The project would have no impact on this issue.

### 3.3 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
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- a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?
- b) Violate any air quality standard or contribute 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 nonattainment 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?

			√
		√	
			√
		√	
			√

## NARRATIVE DISCUSSION

### Environmental Setting

The project site is located within the San Joaquin Valley Air Basin. The San Joaquin Valley Air Pollution Control District (SJVAPCD), which includes San Joaquin County, has jurisdiction over most air quality matters in the San Joaquin Valley Air Basin. The SJVAPCD is tasked with implementing programs and regulations required by the federal and California Clean Air Acts. Under their respective Clean Air Acts, both the State of California and the federal government have established ambient air quality standards for six criteria air pollutants: ozone, particulate

matter (PM), carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. California has four additional criteria pollutants under its Clean Air Act. Table 3-1 shows the status of the San Joaquin Valley Air Basin in attaining these ambient air quality standards.

TABLE 3-1  
SAN JOAQUIN VALLEY AIR BASIN ATTAINMENT STATUS

Criteria Pollutant	Designation/Classification	
	Federal Primary Standards	State Standards
Ozone - One hour	No Federal Standard	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme	Nonattainment
PM <sub>10</sub>	Attainment	Nonattainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide (NO <sub>x</sub> )	Attainment/Unclassified	Attainment
Sulfur Dioxide (SO <sub>x</sub> )	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Source: SJVAPCD 2015a.

As shown in Table 3-1, the San Joaquin Valley Air Basin is considered a non-attainment area for ozone and particulate matter under both State and federal standards, except for the federal standard for particulate matter less than 10 micrometers in diameter (PM<sub>10</sub>). The Air Basin is in attainment of, or unclassified for, all other federal and State criteria pollutant standards.

In addition to the criteria pollutants, the California Air Resources Board (ARB) has identified other air pollutants as toxic air contaminants (TACs) - pollutants that are carcinogenic (i.e., cause cancer) or that may cause other adverse short-term or long-term health effects. Diesel particulate matter, considered a carcinogen, is the most common TAC, as it is a product of combustion in diesel engines. Other TACs are less common and are typically associated with industrial activities.

As previously noted, the SJVAPCD has jurisdiction over most air quality matters in the Air Basin. It implements the federal and California Clean Air Acts, and the applicable attainment and maintenance plans, through local regulations. Applicable attainment plans include the 2007 Ozone Plan and the 2013 Plan for the Revoked 1-Hour Ozone Standard for the Air Basin. They also include the 2015 PM<sub>2.5</sub> Plan for the 1997 federal PM<sub>2.5</sub> standard, the 2012 PM<sub>2.5</sub> Plan for the

2006 federal PM<sub>2.5</sub> standard, the 2016 Moderate Area Plan for the 2012 federal PM<sub>2.5</sub> standard, and the 2007 PM<sub>10</sub> Maintenance Plan to maintain the Air Basin’s attainment status of federal PM<sub>10</sub> standards.

The SJVAPCD regulations that would be applicable to the project are summarized below.

*Regulation VIII (Fugitive Dust PM10 Prohibitions)*

Rules 8011-8081 are designed to reduce PM<sub>10</sub> emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc.

*Rule 4101 (Visible Emissions)*

This rule prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.

### Environmental Impacts and Mitigation Measures

In 2015, the SJVAPCD adopted a revised Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). GAMAQI defines an analysis methodology, thresholds of significance, and mitigation measures for the assessment of air quality impacts for projects within SJVAPCD’s jurisdiction. Table 3-2 below shows the CEQA thresholds for significance for pollutant emissions within the SJVAPCD.

Construction of the proposed project would involve the use of heavy equipment powered by diesel or other internal combustion engines. The Road Construction Emissions Model (RCEM) was used to estimate the pollutant emissions that would result from such equipment use. Although developed for road projects, the RCEM is a useful model to estimate emissions for projects that are linear in character. For the purposes of the model run, the equipment expected to be in use throughout the construction period was assumed to include an excavator, diesel generator set and one “other equipment.” This equipment list was considered “conservative” (over-estimating emissions) with respect to the project. The RCEM results are shown in Appendix C of this document and in Table 3-2 below.

TABLE 3-2  
ESTIMATED CONSTRUCTION AIR POLLUTANT EMISSIONS

<b>Pollutant</b>	<b>SJVAPCD Significance Threshold (tons/year)</b>	<b>Project Emissions (tons/year)</b>	<b>Exceeds Threshold?</b>
ROG	100	0.1	No
NO <sub>x</sub>	10	0.8	No
CO	10	0.4	No
PM <sub>10</sub>	15	<0.1	No
PM <sub>2.5</sub>	15	<0.1	No

Sources: Road Construction Emissions Model v. 7.1.5.1; SJVAPCD 2015.

a) Air Quality Plan Consistency.

The project would not generate any air pollutant emissions once construction work is completed. The project would have no impact regarding consistency with applicable air quality plans.

b) Violation of Air Quality Standards.

The project would not involve any operational emissions. As shown in Table 3-2, the estimated air pollutant emissions generated by project construction would be substantially below the applicable significance thresholds adopted by the SJVAPCD. Project construction may generate localized dust emissions at levels above existing ambient conditions. These emissions would be reduced through implementation of SJVAPCD Regulation VIII. Provisions of Regulation VIII include:

- Air emissions related to the project shall be limited to 20% opacity (opaqueness, lack of transparency) or less, as defined in SJVAPCD Rule 8011. The dust control measures specified below shall be applied as required to maintain the Visible Dust Emissions standard.
- The contractor shall pre-water all land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and phase earthmoving.
- The contractor shall apply water, chemical/organic stabilizer/suppressant, or vegetative ground cover to all disturbed areas, including unpaved roads, throughout the period of soil disturbance.
- The contractor shall restrict vehicular access to the disturbance area during periods of inactivity.
- The contractor shall apply water or chemical/organic stabilizers/suppressants, construct wind barriers and/or cover exposed potentially dust-generating materials.
- When materials are transported off-site, the contractor shall stabilize and cover all materials to be transported and maintain six inches of freeboard space from the top of the container.

Implementation of SJVAPCD Regulation VIII would further reduce dust emission impacts that are already considered less than significant.

c) Cumulative Emissions.

Since the project would not generate any pollutant emissions after completion of construction work, it would have no cumulative impact on air pollutant emissions in the San Joaquin Valley Air Basin.

d) Exposure of Sensitive Receptors.

The project would not generate any air emissions that have the potential to affect sensitive receptors outside the project site. "Sensitive receptors" include land uses such as residences, schools, and health care facilities. The nearest sensitive receptor to the project site, a residence, is more than one mile to the east. Project construction emissions, including criteria pollutants and diesel particulate matter (a TAC), would be dispersed over largely uninhabited agricultural and

natural lands before reaching any residences, and would not occur after construction work is completed. Project impacts are considered less than significant.

e) Odors.

Emissions from construction equipment are a potential source of odors. There are no land uses near the project site sensitive to such odors that would be exposed to them. Odors generated by construction activities would cease when work is done. The project does not have any features that would generate odors after the project is completed. The project would have no impact related to odors.

### 3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?	√			
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 Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?			√	

## NARRATIVE DISCUSSION

### Environmental Setting

The following analysis draws upon a biological resource assessment prepared by Moore Biological Consultants (2017), which follows up a preliminary biological assessment conducted by Moore Biological Consultants in 2015. Appendix D of this IS/MND contains the 2017 Biological Resource Assessment, which includes the study area (figure 2-1).

The preparation of the biological assessment included a search of the California Natural Diversity Database (CNDDDB) managed by the CFDW, acquisition of an IPaC Trust Report by the U.S. Fish and Wildlife Service (USFWS), and two field surveys at the project site and proposed staging area. These field surveys followed up two previous field surveys that were part of the preparation of the 2015 preliminary assessment, for a total of four site visits. Additional information was also provided by Fishbio. Fishbio's report on aquatic species and habitat is included in Appendix D Biological Resource Assessment..

### Existing Biological Resource Conditions

The project site is along the west bank San Joaquin River north of the San Joaquin River Club. Surrounding land uses in this portion of San Joaquin County are primarily agricultural, with widely scattered residences and outbuildings. Most of the parcels in the vicinity of the project site are farmed in hay and other annual crops, with lesser acreage in orchards and vineyards. An area of oak woodland vegetation is on the land side of the levee to the west, and a patch of riparian wetlands and woodland is visible along the east bank of the San Joaquin River to the east.

### Vegetation Communities

Vegetation communities on the project site include annual ruderal grassland, riparian forest, and riparian scrub. Table 2 of the Biological Resource Assessment (see Appendix D) lists plant species that were observed on the project site.

The proposed staging area and ruderal areas along the edges of fields, farm roads, and the levee road are vegetated with highly disturbed and routinely maintained patches of annual grassland. Some of the most common grasses include oats, soft chess brome, riggut brome, foxtail barley, and perennial ryegrass. Other grassland species are intermixed with the grasses, such as black mustard, bull thistle, yellow star-thistle, morning glory, wild radish, fireweed, prickly lettuce, tarweed, fennel, common mallow, and filaree.

The banks of the San Joaquin River support a mosaic of riparian forest and riparian scrub vegetation. Dominant trees in this riparian area include valley oak, white alder, black walnut, and tree tobacco. Oak trees are primarily restricted to higher elevations above the OHWM. Narrow-leaved willow, California button-willow, Himalayan blackberry, California blackberry, and California wild rose are dominant shrubs and vines. The understory is comprised of grasses and weeds typical of the nearby annual grasslands. Within the project site, there is approximately 0.39 acres of riparian forest vegetation and 0.16 acres of scrub-shrub vegetation. There is a blue elderberry shrub midway down the levee slope towards the southern end of the project site. The shrub provides habitat for the valley elderberry longhorn beetle, listed as threatened under the federal Endangered Species Act (ESA).

The San Joaquin River at and below the OHWM shoreline supports a narrow and discontinuous band of willows, umbrella sedge, water smartweed, water primrose, and other emergent wetland

vegetation, along with patches of water hyacinth. There is a small patch of tules and cattails in the vicinity of a fence that extends into the river at the northern portion of the project site.

### Wildlife

Within the project site, the ruderal grassland primarily provides foraging habitat for a variety of bird species. The well-developed riparian woodlands and riparian scrub associated with the San Joaquin River riparian corridor provide habitat for a wide variety of wildlife species. In addition to resident wildlife, the project site provides seasonal habitats for a wide variety of migratory wildlife, primarily fish, waterfowl, and other birds. Table 3 of the biological resource assessment (see Appendix D) lists wildlife species that were observed on the project site.

A variety of bird species were observed during the field surveys; all of these are common species found in agricultural and riparian areas of south San Joaquin County. Several birds were flying around, over the site and perching in trees and shrubs. Mallard, great egret, turkey vulture, red-tailed hawk, Swainson's hawk, American kestrel, northern mockingbird, yellow-billed magpie, western kingbird, mourning dove, western scrub jay, black phoebe, Brewer's blackbird, and red-winged blackbird are representative of the avian species observed in the site. There are several potential nest trees in and near the site that are suitable for nesting raptors and other protected migratory birds, including Swainson's hawk. A few stick nests were observed within some of the trees within and near the site. A great horned owl was observed nesting in a large oak tree approximately 1,000 feet west of the site in 2015, and a red-tailed hawk was observed nesting along the river in 2015 approximately 0.5 miles north of the site.

A variety of mammals common to agricultural areas likely occur in the project site. However, black-tailed hare was the only mammal species observed during the surveys, along with signs of raccoon and beaver. Coyote, striped skunk, desert cottontail, Virginia opossum, and California ground squirrel are expected to occur in the area, as well as a number of species of small rodents including mice and voles. Based on habitat types present, a variety of amphibians and reptiles may use habitats in the site. Western fence lizard and American bullfrog were observed during the recent surveys. Common garter snake, Pacific chorus frog, and gopher snake are known in the greater project vicinity and may occur on the site on occasion. The San Joaquin River also provides suitable habitat for Pacific pond turtle, which is discussed under Special-Status Species below.

Given relatively warm summer water temperatures and aquatic habitat conditions, the San Joaquin River in and adjacent to the project site primarily supports fish species such as largemouth bass, smallmouth bass, bluegill, and catfish. The San Joaquin River is primarily used as a migratory corridor for special-status fish species, including Central Valley steelhead and fall-run Chinook salmon, which are discussed under Special-Status Species below.

### Waters of the U.S. and Wetlands

The San Joaquin River corridor in and adjacent to the project site consists of an alluvial channel associated with a broad floodplain. The open water habitat is primarily low-gradient run and pool habitats with gravel, cobble, and clay substrates. The edges of the river and low areas in the floodplains support riparian vegetation, as described above.

The San Joaquin River is a navigable Water of the U.S., subject to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. The USACE administers both the Section 10 and the Section 404 permit programs. The limit of federal jurisdiction is the OHWM, which has been determined to be at an elevation of 13.77 feet above mean sea level at the project site

(see Chapter 2.0, Project Description). Typically, with rivers like the San Joaquin and with a project site on a steep slope with no adjacent wetlands, the USACE requires confirmation of the OHWM rather than a full wetland delineation. This requirement would be satisfied with identification of the OHWM on project site plans.

The San Joaquin River also falls under the jurisdiction of the CDFW, the RWQCB, and the CVFPB. Each of these agencies has its own permitting program. The CDFW has a Streambed Alteration Agreement (California Fish and Game Code Section 1600 *et seq.*) that would apply to projects that alter stream beds and banks. The RWQCB is responsible for the Clean Water Act Section 401 Water Quality Certification that would be required along with the Section 404 permit. The CVFPB issues encroachment permits to projects that may affect levees. No other wetlands or Waters of the U.S. were observed on or near the project site.

### Special-Status Species

Special-status species are plants and animals that are legally protected under the ESA, the California Endangered Species Act (CESA), or other regulations. Special-status species also include other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Table 4 of the biological resource assessment (see Appendix D) provides a summary of the listing status and habitat requirements of special-status plant and wildlife species that have been documented in, or have potentially suitable habitat in, the greater project vicinity. Most of the special-status species identified in the biological resource assessment, including all plant species, are unlikely to occur on the project site, due mainly to lack of suitable habitat or being outside the known range of the species. However, seven special-status wildlife species were identified as potentially occurring on the project site on more than a transitory basis. These species are described below:

- *Swainson's hawk* - Swainson's hawk is a migratory hawk listed as a threatened species under CESA. They are found in the Central Valley primarily during their breeding season (March 1 through September 15). Swainson's hawks prefer nesting sites that provide sweeping views of nearby foraging grounds consisting of grasslands, irrigated pasture, hay, and wheat crops. The CNDDDB contains several records of nesting Swainson's hawks in the project vicinity; the nearest recorded occurrence is approximately 0.5 miles northeast of the project site.
- *Burrowing owl* - Burrowing owl is a State Species of Concern. The primary habitat requirement of the burrowing owl is small mammal burrows for nesting, usually abandoned ground squirrel burrows. No burrowing owls or evidence of occupancy were observed in or near the project site, and only a few ground squirrels and ground squirrel burrows were observed.
- *Tricolored blackbird* - Tricolored blackbird is a State Species of Concern and is also a candidate for listing as an endangered species under CESA. Tricolored blackbirds are colonial nesters requiring very dense stands of emergent wetland vegetation and/or dense thickets of wild rose or blackberries for nesting. Tricolored blackbirds were not observed on the project site during the surveys; the nearest occurrence of tricolored blackbird recorded in the CNDDDB is approximately 2 miles to the southwest.
- *Pacific pond turtle* - Pacific pond turtle is a State Species of Concern. They are associated with permanent or nearly permanent bodies of water with adequate basking sites such as logs, rocks or open mud banks. No occurrences of Pacific pond turtle have been recorded



within the CNDDDB search area.

- *Central Valley steelhead* – Central Valley steelhead is a fish species listed as threatened under ESA. Anadromous steelhead can be expected to enter freshwater streams between August and November; however, spawning typically takes place between December and April. Juveniles begin to emerge from late winter to summer, and will then spend between one and three years in freshwater before emigrating in the spring. The UC Davis PISCES database indicates that Central Valley steelhead is known to occur in the project area, though it primarily uses the San Joaquin River as a migratory corridor.
- *Fall-run Chinook salmon* – Fall-run Chinook salmon are a State Species of Concern. Adult Chinook salmon typically begin their migration to spawning grounds in the San Joaquin River tributaries in early September and continue until late December. The UC Davis PISCES database indicates that this salmon population is known to occur in the project area. As with the steelhead, the salmon use the river primarily as a migratory corridor.
- *Valley elderberry longhorn beetle* – Valley elderberry longhorn beetle is listed as threatened under ESA. Its habitat is blue elderberry shrubs, where eggs are laid and larvae live in the stems until ready to emerge. As previously noted, a blue elderberry shrub is on the project site, but no exit holes indicative of valley elderberry longhorn beetle occupancy were observed on the stems of this shrub during the field surveys. The nearest occurrence of valley elderberry longhorn beetle recorded in the CNDDDB is approximately 4 miles southeast of the site.

## Biological Resource Ordinances and Plans

The project proposes the removal of one mature oak tree on the project site. Typically, oak tree removal within the County would be subject to San Joaquin County Ordinance Code Chapter 9-1505, which contains provisions intended to preserve Native Oak Trees and Heritage Oak Trees to the extent feasible. This ordinance applies only to projects approved by the County.

The project site is within the coverage area of the San Joaquin County Multi-Species Open Space and Habitat Conservation Plan (SJMSCP). The SJMSCP involves a program that assesses a habitat conservation fee on open space land that is converted to urban uses. The fees are used for habitat acquisition and improvement programs. The SJMSCP also sets forth Incidental Take Minimization Measures that are required to be implemented by projects to prevent impacts to special-status species that may be occupying the site or nearby areas. These measures have been developed for specific species, such as Swainson's hawk and burrowing owl (SJCOG 2000). Participation in the SJMSCP process would be voluntary for RD 2085. As discussed in Chapter 2.0, Project Description, RD 2085 will incorporate project avoidance and minimization measures that would reduce biological resource impacts of the project to a level that would be less than significant.

## Environmental Impacts and Mitigation Measures

### a) Special-Status Species.

The project could impact seven special-status wildlife species or their habitats, as described above. Impacts related to fish species are described in d) below, along with potential mitigation measures. For the other five species, potential project impacts may include the following:

- *Swainson's hawk* - Relatively larger valley oaks, cottonwoods, willows, and other trees in and near the project site and in the greater project vicinity provide suitable nesting habitat for this species. Temporary construction disturbance to the ruderal grassland habitats in the staging area and along the upper levee slope would result in a minor reduction of potential Swainson's hawk foraging habitat. Swainson's hawks could be adversely affected by construction noise and disturbance if they nested in or near the project site during construction. Removal of a tree containing an active Swainson's hawk nest would result in direct take of Swainson's hawks, or their eggs, or chicks.
- *Burrowing owl* – While few ground squirrel burrows were observed, they do exist in the area. Burrowing owls could be adversely affected by construction noise and disturbance if they nested in or near the project site during construction. The temporary construction disturbance to the ruderal grassland habitats in the staging area and along the upper levee slope would result in a minor reduction of potential burrowing owl nesting and foraging habitat. Destruction of a natal burrow would result in direct take of burrowing owls, or their eggs, or chicks.
- *Tricolored blackbird* - The tules, cattails, and other emergent wetland vegetation along the edges of the San Joaquin River provide suitable nesting habitat for this species, as do patches of blackberry brambles and wild rose. The proposed RSP placement would result in a less-than-significant reduction of potentially suitable tricolored blackbird nesting habitat. The temporary construction disturbance to the ruderal grassland habitats in the staging area and along the upper levee slope would result in a minor and less-than-significant reduction of potential tricolored blackbird foraging habitat. Removal of vegetation containing nesting tricolored blackbirds would result in direct take of the birds, or their eggs, or chicks.
- *Pacific pond turtle* - The San Joaquin River provides suitable habitat for Pacific pond turtle. If Pacific pond turtles are present in the San Joaquin River, it is possible they utilize grasslands in the project vicinity for nesting, although it is unlikely Pacific pond turtles nest in the ruderal grasslands on the project site due to the steep and near-vertical stream banks.
- *Valley elderberry longhorn beetle* – There is a single blue elderberry shrub on the project site; no other blue elderberry shrubs were observed in or adjacent to the site. No beetles or evidence of past occupancy by the species were observed in the stems of the shrub. Despite these negative findings, the species could be impacted by the proposed removal of this shrub if it is in fact occupying the shrub.

As described in Chapter 2.0, the project would incorporate measures that would avoid or minimize potential environmental impacts. These would include construction scheduling during late summer or fall to avoid potential impacts to special-status species, pre-construction surveys for potentially occurring special-status species, and mitigation for impacts on valley elderberry longhorn beetle habitat. These avoidance and minimization measures, along with mitigation identified below that more specifically describe the implementation of these measures, would reduce potential impacts on special-status species to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Application of avoidance and minimization measures described in Section 2.5 of Chapter 2.0 of this IS/MND. In addition, the following mitigation measures shall be implemented:

- BIO-1: In order to avoid take of protected raptors and migratory birds between February 1 and August 31, an initial pre-construction nest survey shall be conducted by a CDFW-approved biologist. The survey shall be conducted within fifteen (15) days prior to the beginning of construction activities in order to identify active nests within 500 feet of the project work areas and as to raptors' active nests within a quarter-mile (1,320 feet) of the project work areas. The surveys shall incorporate methodologies from CDFW's 1994 Staff Report regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California and the Swainson's Hawk Technical Advisory Committee 2000 survey guidelines. If active raptor nests are found within 1,320 feet of the work area or other active nests within 500 feet of the work area, a temporary buffer of 1,320 feet and 500 feet, respectively, shall be established and an on-site biologist/monitor experienced with raptor behavior shall be retained by the Reclamation District. The biologist shall monitor the nest(s) and consult with the CDFW to determine the buffers to be applied and best course of action to avoid nest abandonment or take of individuals. The necessity and extent for temporal construction restrictions shall be determined by CDFW. CDFW may determine it is necessary for a designated biologist/monitor to be onsite daily while construction-related activities are within or near buffer areas. The on-site biologist/monitor shall have authority to stop work if raptors are exhibiting agitated behavior such as defensive flights at intruders, unusual getting up from a brooding position or unusual flying off the nest. If during the nesting season there is a lapse in project-related work of fifteen (15) days or longer, another focused survey shall be performed and the results sent to CDFW prior to resuming work.
- BIO-2: Preconstruction surveys for burrowing owl shall be undertaken for construction activities between February 1 and August 31. The surveys shall incorporate methodologies from CDFW's 2012 Staff Report on Burrowing Owl Mitigation and the California Burrowing Owl Consortium 1993 Burrowing Owl Survey Protocol and Mitigation Guidelines. In the event that nesting owls are located within 250 feet of the work areas, temporal construction restrictions may be necessary to eliminate the potential for noise disturbance to the burrowing owls. The necessity and extent for temporal construction restrictions as to nesting burrowing owls is dependent upon location of the nest with respect to construction and shall be determined by CDFW as described above.
- BIO-3: Any vegetation removal during the avian nesting season (February 1 through August 31) shall be immediately preceded by a survey. If active nests are found, adequate marking of the nest site shall be provided and vegetation removal in the vicinity of the nest shall be delayed until the young fledge.
- BIO-4: If a Pacific pond turtle is observed, it should be left alone to move out of the area on its own or may be relocated by a qualified biologist to a suitable aquatic habitat outside of the work area. The Reclamation District shall exercise measures to avoid direct injury to Pacific pond turtle, as well as measures to avoid areas where they are observed to occur. Pre-construction surveys for Pacific pond turtle and their nests will be conducted for construction between April 1 and October 31. This will involve a search for nests in uplands on the landside of the levees. If nest sites are located, the

Reclamation District will notify CDFW and a 50-foot buffer area around the nest shall be staked. Work will be delayed until hatching is complete and the young have left the nest site.

BIO-5: Off-site compensation for the removal of the on-site blue elderberry shrub and associated potential take of valley elderberry longhorn beetle habitat will be accomplished by transplanting the elderberry shrub to a USFWS-approved mitigation bank and purchase of two elderberry mitigation credits at the bank.

BIO-6: A biological worker awareness training program shall be implemented to educate the construction crews of the biological diversity within the project area. The worker awareness program shall include a presentation on the life history and legal status of potentially occurring special-status species and distribution of informational packages to each worker. While all of the species in Table 4 of the biological resource assessment (see Appendix D of this IS/MND) will be at least briefly addressed, the focal species of the worker awareness training program will be Swainson's hawk, burrowing owl, Pacific pond turtle, valley elderberry longhorn beetle, and Central Valley steelhead.

Significance After Mitigation: Less than significant

b) Riparian and Other Sensitive Habitats.

The project would require the removal of a mature valley oak and some other smaller riparian trees, and scrub-shrub vegetation including a blue elderberry shrub. The project would result in the conversion of 0.16 acres of scrub-shrub vegetation and approximately 0.20 acres of riparian forest vegetation to a slope covered with RSP.

As described in Chapter 2.0, the project would incorporate measures that would avoid or minimize potential environmental impacts. These would include construction access via existing farm roads, minimization of overall construction disturbance area, placement of staging area in an adjacent existing disturbed area, and revegetation of disturbed areas with non-invasive native plants after construction work is completed. These avoidance and minimization measures, along with mitigation identified below that more specifically describe the implementation of these measures, would reduce potential impacts on riparian habitats to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Application of avoidance and minimization measures described in Section 2.5 of Chapter 2.0 of this IS/MND. In addition, the following mitigation measures shall be implemented:

BIO-7: Off-site compensatory mitigation for impacts to riverine habitats and associated special-status fish species shall be provided at an approved mitigation bank. The project is within the service area of the Cosumnes Floodplain Mitigation Bank, and the purchase of 0.27 acres of Flooded Riparian credits would provide mitigation for impacts to 0.09 acres of Waters of the U.S. and associated impacts to special-status fish and riparian habitats. In the event credits are not available at the Cosumnes Floodplain Mitigation Bank, equivalent compensatory mitigation would be provided at an alternate agency-approved bank.

BIO-8: The project shall implement standard Best Management Practices for vegetation protection and management of invasive species including fencing of avoided valley oaks and re-seeding disturbed areas with a seed-mix approved by CDFW.

Significance After Mitigation: Less than significant

c) Wetlands and Waters of the U.S.

The San Joaquin River is the only Water of the U.S. identified at the project site. No other wetlands or Waters of the U.S. were observed on or near the project site. The project would affect approximately 0.58 acres of Waters of the U.S., most of which is in the San Joaquin River itself. As shown in Table 2-1 in Chapter 2.0, Project Description, approximately 0.10 acres of the project site below the OHWM would be impacted. Of the 0.10 acres, 0.09 acres would be affected by the placement of fill, and the remainder would be affected temporarily by construction activities.

As described in Chapter 2.0, the project would incorporate measures that would avoid or minimize potential environmental impacts. These would include minimization of the project footprint in jurisdictional Waters of the U.S., implementation of BMPs during and after construction to minimize potential erosion and sedimentation, and mitigation for impacts to Waters of the U.S. and riverine habitats at an agency-approved mitigation bank. These avoidance and minimization measures, along with mitigation identified below that more specifically describe the implementation of these measures, would reduce potential impacts on Waters of the U.S. to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Application of avoidance and minimization measures described in Section 2.5 of Chapter 2.0 of this IS/MND. In addition, the following mitigation measure shall be implemented:

BIO-9: Minimize impacts to potentially jurisdictional Waters of the U.S. and wetlands by restricting all work to the project footprint and adjacent temporary construction areas, as proposed. Permits from USACE, CDFW, RWQCB, and CVFPB shall be secured prior to the placement of any fill material within the jurisdictional Waters of the U.S. The Reclamation District shall implement all permit conditions and mitigation measures related to the protection of sensitive aquatic habitats and species, including any conditions resulting from USACE Section 7 consultations with USFWS and/or the National Marine Fisheries Service (NMFS), such as project scheduling and implementing appropriate construction Best Management Practices.

Significance After Mitigation: Less than significant

d) Fish and Wildlife Movement.

The biological resource assessment notes that the project site provides seasonal habitats for a wide variety of migratory wildlife, such as waterfowl and other birds. There are several potential nest trees in and near the project site that are suitable for nesting raptors and other protected migratory birds, which are protected by the Migratory Bird Treaty Act and the California Fish and Game Code, as well as ESA and CESA if such species are listed. Migratory birds could be adversely affected by construction noise and disturbance if they nested in or near the project site

during construction. Removal of a tree containing an active nest would result in direct take of these birds, or their eggs, or chicks. Mitigation Measures BIO-1 and BIO-3, along with implementation of the avoidance and minimization measures in Section 2.5, would reduce impacts on migratory birds to a level that would be less than significant.

An assessment of project impacts on protected fish species was conducted by Fishbio. The Fishbio assessment noted that the project area features characteristics of relatively disturbed areas, is known to be an area of high predator abundance, and provides low amounts of usable habitat for coldwater fishes (i.e., used as a migratory corridor as opposed to rearing).

Fall-run Chinook salmon and Central Valley steelhead use the San Joaquin River, but primarily as a migratory corridor as they move through the Sacramento-San Joaquin Delta and into the upper tributaries of the river for spawning and rearing. The project area offers relatively low habitat value for the rearing and no spawning habitat for anadromous salmonids; therefore, these fish are likely to occur in the affected area only during migrations. If work from the proposed project during construction results in the release of more than minor amounts of sediment, the impacts could be potentially significant, but they can be mitigated.

As described in Chapter 2.0, the project would incorporate measures that would avoid or minimize potential environmental impacts. These would include minimization of the project footprint in jurisdictional Waters of the U.S., pre-construction surveys for potentially occurring special-status species, and implementation of BMPs during and after construction to minimize potential erosion and sedimentation. These avoidance and minimization measures, along with Mitigation Measures BIO-6, BIO-7 and BIO-9 and mitigation identified below that more specifically describe the implementation of these measures, would reduce potential impacts on fish species to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Application of avoidance and minimization measures described in Section 2.5 of Chapter 2.0 of this IS/MND. In addition, the following mitigation measure shall be implemented:

BIO-10: Project construction in the water shall be scheduled between August 1 and October 31 to reduce the potential for sedimentation of San Joaquin River, and associated impacts to aquatic resources including special-status fish that occur in the San Joaquin River or downstream waterways on a seasonal basis. This work window may be adjusted through consultation with CDFW, NMFS and/or USFWS. During the late-summer or fall work window, the lower edge of the erosion repair site will either be dry or inundated with shallow water (estimated depth less than one foot) during construction. A silt curtain or dewatering devices shall be installed during project construction to minimize the potential for sediment release in to the river and protect salmon that may be in the river from elevated levels of background turbidity in the vicinity of the repair site.

Significance After Mitigation: Less than significant

#### e) Local Biological Requirements.

As previously noted, the proposed removal of one mature oak tree on the project site would not be subject to County Ordinance Code Chapter 9-1505, since this ordinance applies only to projects requiring approvals from the County. No other permits or approvals would be required

for the removal of the oak tree. Other oak trees on the project site would not be removed by the project, but could be unintentionally affected by the project. As described in Chapter 2.0, the project would incorporate measures that would avoid or minimize potential environmental impacts. These would include protection with fencing of oak trees that will be retained. These avoidance and minimization measures, along with implementation of Mitigation Measure BIO-8 described above, would reduce potential impacts on oak trees to a level that would be less than significant. No other local biological resource ordinances would apply to this project.

Level of Significance: Potentially significant

Mitigation Measures: Application of avoidance and minimization measures described in Section 2.5 of Chapter 2.0 of this IS/MND, plus implementation of Mitigation Measure BIO-8.

Significance after Mitigation: Less than significant

f) Conflict with Habitat Conservation Plans.

As noted above, RD 2085 participation in the SJMSCP process is voluntary. Should RD 2085 choose to participate in the SJMSCP, no conflict with the SJMSCP would occur, and implementation of the provisions of the SJMSCP are considered to reduce potential biological resource impacts to a level that is less than significant. Should RD 2085 choose to not participate in the SJMSCP, the avoidance and minimization measures described in Chapter 2.0, plus the mitigation measures described in this section, would avoid or minimize impacts on species and habitat that are covered by the SJMSCP. Project impacts are considered less than significant.

### 3.5 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 Section 15064.5?				√
b) Cause a substantial adverse change in the significance of a unique archaeological resource (i.e., an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it contains information needed to answer important scientific research questions, has a special and particular quality such as being the oldest or best available example of its type, or is directly associated with a scientifically recognized important prehistoric or historic event or person)?		√		
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 formal cemeteries?			√	

## NARRATIVE DISCUSSION

### Environmental Setting

Except where cited, information for this section comes from an archaeological inventory survey of the project site conducted by Genesis Society (2016). The survey consisted of a records search at the Central California Information Center, a search of historical registers and various documents, and a pedestrian field survey of the project site. Appendix E of this IS/MND contains the archaeological inventory survey.

### Prehistoric Background

The project site is located within territory claimed by the Yokuts at the time of initial European American contact. The Yokuts occupied an extensive area from the Coast Ranges to the Sierra Nevada foothills, and from the American River to the upper San Joaquin River. Yokut villages typically consisted of a scattering of small structures, numbering from four or five to several dozen in larger villages, and were often located on flats adjoining streams. These villages were inhabited mainly in the winter, because it was necessary to go into the hills and higher elevation zones to establish temporary camps during food-gathering seasons. As with most California Indian groups, economic life for the Yokuts revolved around hunting, fishing, and collecting plants, with deer, acorns and avian and aquatic resources representing primary staples. The Yokuts used a wide variety of wooden, bone, and stone artifacts to collect and process their food, and they used local resources to manufacture an array of primary and secondary tools and implements. Only fragmentary evidence of their material culture remains, due in part to perishability and in part to impacts to archaeological sites resulting from later land uses.

### Historic Background

Historically, this part of the Central Valley was first visited by Anglo-American fur trappers, Russian scientists and Spanish-Mexican expeditions during the first half of the 19th century. This was followed by a rapid escalation of European-American activities, culminating in a massive influx triggered by the discovery of gold at Coloma in 1848. Once gold was discovered in 1848, demand for commodities led quickly to the expansion of ranching and agriculture, followed by permanent communities along major transportation corridors, especially railroads. By the end of the 19th Century, a substantial portion of the Central Valley was being cultivated, with increasing mechanization occurring through the 20th Century.

California Historical Landmark #777 was established at 31167 Kasson Road, south of the project site. It marks the site of San Joaquin City, a river town established in 1849 that no longer exists. Pioneers and freight wagons following post roads to the southern mines crossed the river nearby at Durham's Ferry, and as a terminal for riverboats, the town played an important part in development of grain farming and cattle raising in the area (California Office of Historic Preservation 2016). As late as 1880, San Joaquin City had a hotel, warehouse, two saloons, stores, and homes. The ferry remained in operation until a bridge replaced it in 1902.

Land reclamation in California can be traced to the Swamp Land Act of 1850, federal legislation that authorized the transfer of federal swamplands to private ownership provided that the swamplands be drained and made productive. Owners of reclaimed land were authorized to organize special districts to acquire, build, and operate reclamation works. Locally, the Kasson District was formed in 1921. Subsequently, RD 2085 was established in 1947 as a result of the Central Valley Project.



## Paleontological Resources

The vast majority of paleontological specimens from San Joaquin County have been found in rock formations in the foothills of the Diablo Mountain Range. However, remains of extinct animals, such as mammoth, could be found virtually anywhere in the county, especially along watercourses such as the San Joaquin River and its tributaries (San Joaquin County 2016). The Modesto Formation, which contain Quaternary Period sedimentary deposits, has produced paleontological materials, including land mammals, birds, reptiles, and amphibians (California High Speed Rail Authority 2012). This formation does not underlie the project site.

## Environmental Impacts and Mitigation Measures

### a) Historical Resources.

The records search conducted as part of the archaeological inventory survey revealed no records of any historical resources on or within one quarter-mile of the project site. The field survey found no evidence of any historic-era resources. Based on the results of the archaeological inventory survey, the project would have no impact on historical resources.

### b) Archaeological Resources.

The records search conducted as part of the archaeological inventory survey revealed no records of any historical resources on or within one quarter-mile of the project site. The existence of archaeological resources at the project site is unknown. The field survey found no evidence of any archaeological resources.

Although there is no record of archaeological resources at the project site, locations near the San Joaquin River have been known to yield such resources. It is conceivable that excavation associated with the project could unearth archaeological materials of significance. The establishment of procedures to address archaeological discoveries if they should occur would reduce any potential impacts to a level that would be less than significant. These procedures are set forth in the following mitigation measure.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-1: If any subsurface cultural or paleontological resources are encountered during construction of the project, all construction activities in the vicinity of the encounter shall be halted until a qualified archaeologist, or paleontologist as appropriate, can examine these materials, make a determination of their significance and, if significant, recommend further mitigation measures that would reduce potential effects to a level that would be less than significant. Such measures could include 1) preservation in place or 2) excavation, recovery and curation by qualified professionals. The Reclamation District shall be responsible for retaining qualified professionals, implementing recommended mitigation measures and documenting mitigation efforts in a written report, consistent with the requirements of the State CEQA Guidelines.

Significance After Mitigation: Less than significant

### c) Paleontological Resources.

The project site is not in a location where paleontological materials could be expected, based on its underlying geology. Nevertheless, it is conceivable that excavation associated with the project could unearth paleontological materials of significance. The establishment of procedures to address paleontological discoveries if they should occur would reduce any potential impacts to a less than significant level. These procedures are set forth in Mitigation Measure CULT-1 above.

d) Human Burials.

It is not expected that the project would uncover any human burials, particularly Native American burials, given the lack of records of any burials. Given the location near the San Joaquin River, it is conceivable that construction work associated with the project could uncover a previously unknown burial.

CEQA Guidelines Section 15064.5(e) describes the procedure to be followed when human remains are uncovered in a location outside a dedicated cemetery. All work in the vicinity of the find shall be halted and the County Coroner shall be notified to determine if an investigation of the death is required. If the County Coroner determines that the remains are Native American in origin, then the County Coroner must contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall identify the most likely descendants of the deceased Native American, and the most likely descendants may make recommendations on the disposition of the remains and any associated grave goods with appropriate dignity. If a most likely descendant cannot be identified, the descendant fails to make a recommendation, or the landowner rejects the recommendations of the most likely descendant, then the landowner shall rebury the remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.

Compliance with the provisions of CEQA Guidelines Section 15064.5(e) would ensure that impacts on any human remains encountered during project construction would be less than significant.

### 3.6 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 strata 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, creating substantial risks to life or property?
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

			√
	√		
		√	
			√
			√

## NARRATIVE DISCUSSION

### Environmental Setting

The project site is located within the alluvial Great Valley geomorphic province, also known as the Central Valley, which is a sediment-filled trough approximately 450 miles long and 50 miles wide flanked on the east and west by the Sierra Nevada and Coast Ranges, respectively. In the vicinity of the project site, erosion of the Sierra Nevada and Coast Ranges has filled in the valley with a thick sequence of unconsolidated to semi-consolidated Quaternary-age alluvial, basin, and delta plain sediments deposited by the Sacramento and San Joaquin Rivers and their tributaries. The bedrock complex is likely composed of metamorphosed marine sediments similar to those found in the Sierra Nevada foothills and the core of the Coast Ranges (Kleinfelder 2016).

The project site lies within the meander zone of the San Joaquin River. Characteristics are unique due to deposits and features associated with channel migration, such as floodplain deposits, point bar deposits, meander cutoff features, and oxbow lakes. Surficial geologic maps of the area prepared for a DWR program indicate the project site is underlain by recent-age stream channel deposits. These deposits are geologically young, mostly granular, and poorly consolidated.

Kleinfelder conducted a geotechnical study of the project site, which is available in Appendix F of this IS/MND. As part of the geotechnical study, a geotechnical boring was conducted in the river bench. The boring revealed a layer of silty sand to a depth of about 11.5 feet, underlain by interbedded layers of sandy lean, sandy silt, and silty sand to a depth of about 17.5 feet, and underlain in turn by interbedded strata of poorly graded sand, poorly graded sand with silt, and silty sand to the maximum boring depth of about 33 feet (Kleinfelder 2016).

A custom soil survey of the project site, based upon previous work by the Natural Resource Conservation Service, indicates the project site is underlain by Columbia fine sandy loam (USDA NRCS 2016). This soil is a very deep, poorly drained soil formed in alluvium from mixed rock sources. Permeability is moderately rapid, and runoff is slow. The hazard for water erosion and wind erosion is slight. The “shrink-swell” potential, which is the potential for the soil to expand and contract, is low (USDA SCS 1992).

There are no active or potentially active faults located within or near the project site. No Alquist-Priolo Earthquake Fault Zones, designated by the State Geologist as areas of potential surface fault rupture, are located within the project site (California Geological Survey 2015). San Joaquin County is subject to seismic shaking from fault features located to the east and west of the County, including the Hayward/Rodgers Creek, San Andreas, and Calaveras Faults (San Joaquin County 2016).

Soil compaction and settlement can result from seismic groundshaking. If the sediments that compact during an earthquake are saturated, water from voids is forced to the ground surface, where it emerges in the form of mud spouts or sand boils – a process called liquefaction. Based on known information, areas of the County with groundwater less than 50 feet from ground surface in unconsolidated sediment are susceptible to liquefaction, including levees, wetlands and lands near river courses (San Joaquin County 2016).

## Environmental Impacts and Mitigation Measures

### a-1) Fault Rupture Hazards.

There are no active or potentially active faults located within or near the project site, nor are there Alquist-Priolo zones. The project would have no impact related to fault rupture.

### a-2, 3) Seismic Hazards.

The project site, along with the rest of the County, is subject to seismic shaking from fault features located to the east and west of the County. Since the project is a regrading of the riverbank and placement of RSP, it is unlikely to be affected by seismic shaking or other seismic hazards. Liquefaction may possibly occur on the project site as a result of an earthquake, but no structures would be constructed on the site, so liquefaction would do no significant damage. Project impacts related to seismic hazards are considered less than significant.

### a-4) Landslides.

The project site is in an area that is topographically flat. The only feature with significant slopes is the river bank, and the project is designed to prevent further erosion and sliding of the bank. The project would have no impact related to landslides.

### b) Soil Erosion.

The soil underlying the project site is Columbia fine sandy loam, which is a soil with a slight water and wind erosion hazard. Construction activities may expose some soils to potential water and wind erosion. Potential wind erosion problems related to project construction would be controlled through compliance with SJVAPCD Regulation VIII, as described in Section 3.3, Air Quality. Also, required permits for this project, such as the Section 404 permit and Streambed Alteration Agreement, generally contain conditions designed to control potential erosion related to water. Compliance with permit conditions and with SJVAPCD Regulation VIII would minimize potential soil erosion impacts from construction activities. Project operations would have a beneficial impact related to erosion, as the purpose of the project is to prevent further erosion of the riverbank. Overall, impacts related to erosion are considered less than significant.

In addition, as described in Chapter 2.0, Project Description, the project would incorporate measures that would avoid or minimize potential environmental impacts. These would include minimization of overall construction disturbance area, revegetation of disturbed areas with native non-invasive plant species following construction, and implementation of BMPs during and after

construction to minimize potential erosion and sedimentation. These avoidance and minimization measures would reduce potential impacts related to soil erosion to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Application of avoidance and minimization measures described in Section 2.5 of Chapter 2.0 of this IS/MND.

Significance After Mitigation: Less than significant

c) Geologic Instability.

The soil underlying the project site has not been identified as inherently unstable or prone to failure. The project site would be regraded, but the regrading is not expected to induce any type of instability; in fact, the project is intended to stop further erosion of the riverbank, which if left alone would increase instability along the bank.

The Kleinfelder geotechnical study, which included a slope stability analysis, recommended two options for cuts of the riverbank slope, along with placement of RSP under both options, for the project to comply with USACE requirements for waterside slope stability (Kleinfelder 2016). The project is consistent with the recommendations of the geotechnical study, so slope stability would not be an issue. Project impacts on geologic instability are considered less than significant.

d) Expansive Soils.

The Columbia fine sandy loam on the project site has a low shrink-swell potential. This soil is unlikely to expand and contract at a level that would do damage to the project. There would be no impact related to expansive soils.

e) Adequacy of Soils for Sewage Disposal.

The project would not use, and does not propose to install, any septic systems. The project would have no impact related to this issue.

### 3.7 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?				√

## NARRATIVE DISCUSSION

### Environmental Setting

Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. GHGs are both naturally occurring and are emitted by human activity. GHGs include carbon dioxide (CO<sub>2</sub>), the most abundant GHG, as well as methane, nitrous oxide and other gases. GHG emissions in California in 2014 were estimated at 441.5 million metric tons carbon dioxide equivalent (CO<sub>2</sub>e) – a decrease of 9.4% from the peak level in 2004. Major GHG sources in California include transportation (36%), industrial activities (21%), and electric power generation (20%). Agricultural activities contribute a smaller share of GHG emissions (ARB 2016).

Increased atmospheric concentrations of GHGs are considered a main contributor to global climate change, which is a subject of concern for the State of California. Potential impacts of global climate change in California include reduced Sierra Nevada snowpack, increased wildfire hazards, greater number of hot days with associated decreases in air quality, and potential decreases in agricultural production (Climate Action Team 2010).

Unlike the criteria air pollutants described in Section 3.3, Air Quality, GHGs have no “attainment” standards established by the federal or State government. In fact, GHGs are not generally thought of as traditional air pollutants because their impacts are global in nature, while air pollutants mainly affect the general region of their release to the atmosphere (SJVAPCD 2015). Nevertheless, the U.S. Environmental Protection Agency (EPA) has found that GHG emissions endanger both the public health and public welfare under Section 202(a) of the Clean Air Act due to their impacts associated with climate change (EPA 2009).

The State of California is identifying strategies and implementing GHG emission reduction programs through Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, which requires total statewide GHG emissions to reach 1990 levels by 2010, or an approximately 29% reduction from 2004 levels. In compliance with AB 32, the State adopted the Climate Change Scoping Plan in 2008, and updated the plan in 2014. Primary strategies addressed in the original Scoping Plan included new industrial and emission control technologies; alternative energy generation technologies; advanced energy conservation in lighting, heating, cooling and ventilation; fuels with reduced carbon content; hybrid and electric vehicles; and methods for improving vehicle mileage (ARB 2008). The 2014 update highlights California's progress toward meeting the 2020 GHG emission reduction goal of the original Scoping Plan, and it establishes a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050 (ARB 2014).

In 2016, the State enacted Senate Bill (SB) 32. SB 32 extends the GHG reduction objectives of AB 32 by mandating a statewide reduction in GHG emissions to a level that is 40% below the 1990 level by the year 2030. The State has recently released a draft Scoping Plan for public review that sets forth strategies for achieving the SB 32 target. The draft Scoping Plan proposes to continue many of the programs that were part of the previous Scoping Plans, including the cap-and-trade program, low-carbon fuel standards, renewable energy, and methane reduction strategies. It integrates strategies to address climate change impacts from other state actions, such as the Short-Lived Climate Pollutant Reduction Strategy and the Sustainable Communities Strategies required by SB 375. It also addresses for the first time GHG emissions from the natural

and working lands of California, including the agriculture and forestry sectors (ARB 2017). The public comment period on the draft Scoping Plan ended on April 10, 2017.

The SJVAPCD adopted a Climate Change Action Plan in 2008 and issued guidance for development project compliance with the plan in 2009. The guidance adopted an approach that relies on the use of Best Performance Standards to reduce GHG emissions. Projects implementing Best Performance Standards would be determined to have a less than cumulatively significant impact. For projects not implementing Best Performance Standards, demonstration of a 29% reduction in project-specific (i.e., operational) GHG emissions from business-as-usual conditions is required to determine that a project would have a cumulative impacts that is less than significant (SJVAPCD 2009). The SJVAPCD has no quantitative significance thresholds for GHG emissions, as it does with air pollutants as illustrated in Table 3-2 in Section 3.3, Air Quality.

### Environmental Impacts and Mitigation Measures

a) Project GHG Emissions.

Based on results from the RCEM run (see Appendix C), CO<sub>2</sub> emissions from project construction are estimated to be 92.0 tons (approximately 83.46 metric tons) for the entire construction period. Construction emissions would be limited to a short time period and would cease once work is completed. Upon completion, the project would not generate any GHG emissions, either directly or indirectly. Project impacts related to GHG emissions are considered less than significant.

b) Consistency with GHG Reduction Plans.

As noted in a) above, the project would not generate any GHG emissions when construction work is completed. As a result, the project would have no impact related to the GHG reduction objectives of the State’s Climate Change Scoping Plan and the SJVAPCD’s Climate Change Action Plan. The project would have no impact related to GHG reduction plans.

### 3.8 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?

			√
			√
			√
			√

## NARRATIVE DISCUSSION

### Environmental Setting

This section focuses on hazards associated with hazardous materials, proximity to airports, and wildfires. Geologic and soil hazards are addressed in Section 3.6, Geology and Soils, and potential flooding hazards are addressed in Section 3.9, Hydrology and Water Quality.

Data on hazardous material sites are kept in the GeoTracker database, maintained by the State Water Resources Control Board (SWRCB), and in the EnviroStor database, maintained by the California Department of Toxic Substances Control (DTSC). Both GeoTracker and EnviroStor provide the names and addresses of hazardous material sites, along with their cleanup status. A search of GeoTracker and EnviroStor indicated no record of active hazardous material sites (i.e., sites not cleaned up) on or in the vicinity of the project site (DTSC 2015, SWRCB 2015).

New Jerusalem Airport, owned and operated by the City of Tracy, is located approximately two miles southwest of the project site. It is served by one runway with a length of 3,530 feet. This public use airport is unattended and serves as a staging area for aerial chemical application, pilot training activities, as well as powered parachute and ultralight activities (Coffman Associates 2009). A review of aerial photographs in Google Earth revealed no private airstrips in the vicinity of the project site.

Wildland fires are an annual hazard in San Joaquin County. Wildland fires burn natural vegetation on undeveloped lands and include rangeland, brush, and grass fires. Long, hot, and dry summers with temperatures often exceeding 100°F add to the County's fire hazard. Human activities are the major causes of wildland fires, while lightning causes the remaining wildland fires. High hazard areas for wildland fires are the grass-covered areas in the east and the foothills in the southwestern portion of the County (San Joaquin County 2016).



## Environmental Impacts and Mitigation Measures

### a) Transport, Use, and Disposal of Hazardous Materials.

The project would not require the use or storage of hazardous materials, and as such would not require the transport or the disposal of such substances. The project would have no impact on this issue.

### b) Releases of Hazardous Materials.

Construction activities may involve the use of hazardous materials such as fuels and solvents, which may create a potential for hazardous material spills. Construction and maintenance vehicles would transport and use fuels in ordinary quantities. Fuel spills, if any occur, would be minimal and would not have significant adverse effects in the area. Work near the river would be subject to conditions of the permits required for the project, some of which would address potential water quality issues. Other substances used in the construction process would be stored in approved containers and used in relatively small quantities, in accordance with the manufacturers' recommendations and/or applicable regulations. Upon completion of construction work, the project would not require the use or storage of hazardous materials, as discussed in a) above. Project impacts are considered less than significant.

### c) Release of Hazardous Materials near Schools.

The project would not emit hazardous materials, and the nearest school to the project site – New Jerusalem Elementary School – is approximately 4 miles to the southwest. The project would have no impact related to this issue.

### d) Hazardous Materials Sites.

None of the lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5 contains sites within the project site. As previously noted, a search of the GeoTracker and EnviroStor databases did not identify any hazardous material sites in the project vicinity. A list of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit did not show any locations within the project site (CalEPA 2016a); likewise, a list by SWRCB containing sites under Cease and Desist Orders and Cleanup and Abatement Orders showed no locations (CalEPA 2016b). The project would have no impact related to hazardous material sites.

### e, f) Airport and Airstrip Operations.

The project site is within the Airport Influence Area of the New Jerusalem Airport, as established by the San Joaquin County Airport Land Use Compatibility Plan. The project is the stabilization of a riverbank that is located outside all airport safety zones. The project would not place any residents or workers on a permanent basis inside the safety zones of New Jerusalem Airport. The project would have no impact on airports or airstrips.

### g) Emergency Response and Emergency Evacuations.

The project would be constructed away from public roads that would be used for emergency vehicle responses or for emergency evacuations. The project would have no impact on emergency responses or evacuations.

h) Wildland Fire Hazards.

The project site is not located in an area of the County prone to wildland fires. The project would be constructed in a vegetated area that could be a wildfire hazard under hot and dry conditions. The project does not propose to place any structures within this area that could be damaged by wildfire. The project is adjacent to the San Joaquin River, and the regrading and RSP would further reduce the likelihood of a wildfire on the project site. The project would have no impact related to wildland fire hazards.

### 3.9 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?		√		
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 a levee or dam?		√		

j) Inundation by seiche, tsunami, or mudflow?

			√
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## NARRATIVE DISCUSSION

### Environmental Setting

The project site is adjacent to the San Joaquin River. The segment of the river adjacent to the project site is within the legally defined boundaries of the Sacramento-San Joaquin Delta, where the Sacramento and San Joaquin Rivers converge. This reach of the river is influenced by flows from upstream and return flows from agricultural operations that receive water from the San Joaquin River and the Delta Mendota Canal. It is also influenced by tidal flows that come from San Francisco Bay. The channel capacity of the San Joaquin River near Vernalis, a community near the project site, is 52,000 cubic feet per second (DWR et al. 2013).

TABLE 3-3  
SECTION 303(D) LIST OF POLLUTANTS IN SAN JOAQUIN RIVER  
ADJACENT TO PROJECT SITE

Pollutant	Pollutant Category	Potential Source
Chlorpyrifos	Pesticides	Agriculture
DDE	Pesticides	Agriculture
DDT	Pesticides	Agriculture
Diuron	Pesticides	Agriculture
Electrical Conductivity	Salinity	Agriculture
E. coli	Pathogens	Unknown
Group A Pesticides	Pesticides	Agriculture
Mercury	Metals/Metalloids	Resource Extraction
Temperature, water	Miscellaneous	Unknown
Toxaphene	Pesticides	Unknown

Source: RWQCB 2010.

The RWQCB has listed pollutants for which water quality in the segment of the San Joaquin River adjacent to the project site is considered impaired under Clean Water Act Section 303(d), along with the category of the pollutant (RWQCB 2010). Table 3-3 lists the pollutants and their potential sources.

Groundwater resources beneath the project site are part of the vast Central Valley aquifer, which consists of unconsolidated sediments derived from the Coast Ranges and the Sierra Nevada Mountains. This aquifer provides water to agricultural uses and communities in the Central Valley. The project site is located within the Tracy Subbasin, which lies west of the San Joaquin River in southwestern San Joaquin County (DWR 2006). As of the fall of 2016, groundwater levels in the project site were less than 30 feet below ground surface (San Joaquin County FCWCD 2016).

Based on information from the Federal Emergency Management Agency (FEMA), the project site is within the 100-year floodplain of the San Joaquin River (FEMA 2009). According to a dam failure plan prepared by the County Office of Emergency Services, the project site and vicinity is

subject to inundation from a potential failure of New Melones Dam, San Luis Dam, Lake McClure, Pine Flat Lake, and Lake Tulloch (San Joaquin County OES 2003). Levee failures are not a rare occurrence in the Delta region; since original reclamation, each of the 70 islands or tracts has flooded at least once (DWR 1995).

For projects that disturb one acre of soil or more, the SWRCB requires a Construction General Permit. The permit requirements include preparation of a Storm Water Pollution Prevention Plan (SWPPP) by a Qualified SWPPP Developer to address potential water quality issues. The SWPPP includes implementation of Best Management Practices to avoid or minimize adverse water quality impacts. The project is expected to disturb less than one acre, so it would not be required to obtain a Construction General Permit.

## Environmental Impacts and Mitigation Measures

### a, f) Surface Waters and Water Quality.

Construction work associated with the project would directly disturb the riverbank along the San Joaquin River and could lead to a release of sediments that would adversely affect water quality in the river. As discussed in Section 3.4, Biological Resources, work within stream channels would be required to obtain several permits, including a USACE Section 404 permit, a Section 401 Water Quality Certification from RWQCB, and a CDFW Lake and Streambed Alteration Agreement. These permits typically have conditions attached that are designed to avoid or minimize impacts on the water quality of the streams in which work would be conducted. Compliance with these permit conditions would reduce water quality impacts of project construction to a level that would be less than significant.

In addition, as described in Chapter 2.0, Project Description, the project would incorporate measures that would avoid or minimize potential environmental impacts. These would include minimization of overall construction disturbance area, minimization of project footprint in jurisdictional Waters of the U.S., revegetation of disturbed areas with native non-invasive plant species following construction, and implementation of BMPs during and after construction to minimize potential erosion and sedimentation. These avoidance and minimization measures would reduce potential impacts on surface waters and their water quality to a level that would be less than significant.

After construction work is completed, the project is not expected to contribute any significant adverse water quality impacts. The regrading and RSP would reduce riverbank erosion, which contributes sediments to the San Joaquin River.

Level of Significance: Potentially significant

Mitigation Measures: Application of avoidance and minimization measures described in Section 2.5 of Chapter 2.0 of this IS/MND.

Significance After Mitigation: Less than significant

### b) Groundwater Supplies.

The project would not require the use of groundwater. All construction work would be done on the surface and would not require excavation or other activities that could potentially disturb aquifers. The project would have no impact on groundwater supplies.

c, d) Drainage Patterns.

Project improvements would occur within the waterside portion of the levee. The results of the work would not alter the flow of the river. The project would not alter the existing surface drainage pattern in the area, as runoff in the project area would continue to flow into the river. The project would have no impact on drainage patterns.

e) Runoff.

While the project would add RSP to the regraded area, it is not expected to generate significant additional stormwater runoff, as the surface would not be completely impervious. Any additional runoff would drain into the San Joaquin River and not onto any nearby lands. Project impacts on runoff would be less than significant.

g, h) Flooding Hazards.

The project would not place housing or other structures within a 100-year floodplain. Because of this, the project would not impede or redirect flood flows. The project would have no impact related to placement of structures in floodplains.

i) Dam and Levee Failure Hazards.

As noted above, the project site is located within potential inundation zones of several facilities were they to fail. The probability of failure of the specified dams and reservoirs is considered low, and the project would have no change on the potential hazard within the project site. Moreover, the project would not place any structures on the site that would be vulnerable to flooding from dam failure.

Seepage in a levee could undermine its structural integrity, leading to a breach. A geotechnical study of the project site concluded that seepage at the levee segment adjacent to the project site is not a significant issue (Kleinfelder 2016). The project would repair erosion along a riverbank to prevent further erosion that may encroach upon a nearby levee that protects adjacent land from flooding. With completion of the project, the levee would be protected from encroaching erosion, thereby maintaining its structural integrity. Land uses along the west bank of the river, including the San Joaquin River Club, would be protected from future flooding. Adverse project impacts related to dam and levee failure are considered less than significant; the project would have a beneficial impact by maintaining flood protection.

j) Seiche, Tsunami, and Mudflow Hazards.

The project is located in a topographically flat area away from large bodies of water. Because of this, the project would not experience seiche, tsunami or mudflow hazards. The project would have no impact related to this issue.

### 3.10 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 communities conservation plan?

## NARRATIVE DISCUSSION

### Environmental Setting

The project site is located within an area of unincorporated San Joaquin County that is predominantly rural in character. Agricultural lands are found throughout the project vicinity, interspersed with rural residences and farm structures. There are no established communities in the vicinity other than the San Joaquin River Club, a private residential club approximately 1.5 miles southwest of the project site.

The San Joaquin County General Plan, an update of which was adopted in 2016, has designated the land on and adjacent to the project site as General Agricultural. County zoning for the land on and adjacent to the project site is AG-40, General Agriculture with a minimum parcel size of 40 acres.

### Environmental Impacts and Mitigation Measures

a) Division of Established Communities.

The project is not located in an area where there are established communities, so the project would not divide any communities. The project would have no impact related to this issue.

b) Conflict with Adopted Actions for Environmental Effects.

As discussed in Section 3.2, Agriculture and Forestry Resources, the project would have no impact on agricultural lands, as no agricultural land would be lost to the project. Moreover, since the project would control an erosion problem that potentially threatens the structural integrity of a levee, it would maintain flood protection for nearby agricultural lands. The project would not conflict with agricultural land protection policies in the Land Use Element of the County General Plan.

The project proposes some construction work within the OHWM of the San Joaquin River, which could conflict with County General Plan policies regarding water quality and riparian habitat. These include Policy NCR-2.1, in which the County shall protect significant biological and ecological resources that include riparian areas, and Policy NCR-3.10, in which the County pledges to coordinate with State and federal agencies to implement policies regarding protection and enhancement of waterways. Habitat issues are discussed in Section 3.4, Biological Resources, and water quality issues are discussed in Section 3.9, Hydrology and Water Quality. The Biological Resources section describes mitigation measures to reduce potential impacts on habitats, while the Hydrology and Water Quality section notes that required permits from State and federal agencies typically contain conditions to reduce water quality impacts.

The project would have no significant conflicts with other County General Plan policies adopted to avoid or minimize environmental impacts. As noted in Section 3.4, Biological Resources, a County ordinance designed to preserve oak trees is not applicable to RD 2085. Project impacts are considered less than significant.

c) Conflict with Habitat Conservation Plans.

As discussed in Section 3.4, Biological Resources, RD 2085 may choose to participate in the SJMSCP for this project. Should RD 2085 choose to not participate, then mitigation measures described in Section 3.4 would reduce impacts on affected biological resources to a level that would be less than significant. Potential conflicts with the SJMSCP are considered less than significant.

### 3.11 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?				√

## NARRATIVE DISCUSSION

### Environmental Setting

The mineral resource development potential of lands in the counties are classified by the State Geologist in accordance with the California Mineral Land Classification System. The classifications include:

MRZ-1 Areas of No Mineral Resource Significance

MRZ-2 Areas of Identified Mineral Resource Significance

MRZ-3 Areas of Undetermined Mineral Resource Significance

MRZ-4 Areas of Unknown Mineral Resource Significance

Neither the project site nor the vicinity is within a designated MRZ (Jensen and Silva 1988). According to the San Joaquin County General Plan Background Report, there are no designated mineral deposits in the area (San Joaquin County 2016). Soils on the project site are fine-grained and do not represent a known mineral resource. The Vernalis natural gas field is located west of the project site but does not include the site itself (California Department of Conservation DOGGR 2001).

## Environmental Impacts and Mitigation Measures

a, b) Availability of Mineral Resources.

Since there are no identified mineral resources areas in the project site, the project would have no effect on the availability of or access to locally designated or known mineral resources. The project would have no impact on mineral resources.

### 3.12 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?				√

## NARRATIVE DISCUSSION

### Environmental Setting

Noise is often described as unwanted sound, which is any pressure variation in air that the human ear can detect. Since measuring sound by pressure would require a large and awkward range of numbers, the decibel (dB) scale was devised. This scale is typically adjusted for perception of loudness by the standardized A-weighting network, which provides a strong correlation between A-weighted decibels (dBA) and community noise.

Community noise is commonly described in terms of the "ambient" noise level – the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level ( $L_{eq}$ ), which



corresponds to a steady-state, dBA sound level containing the same total energy as a time-varying signal over a given time period, usually one hour. The  $L_{eq}$  shows very good correlation with community response to noise, and it is the basis for other noise descriptors.

The project site does not contain any significant noise sources. The only noise associated with the project site is from vehicles making occasional trips on the nearby levee road. In the vicinity of the project site, the main source of noise comes from agricultural operations. A more distant noise source is vehicle traffic on local roads, but noise from this source is sporadic and does not contribute noticeably to ambient noise at the project site.

Section 9-1025.9 of the San Joaquin County Ordinance Code establishes noise standards applicable to projects. New stationary noise sources shall be required to mitigate noise levels so as not to exceed the hourly  $L_{eq}$  of 50 dB during the daytime and 45 dB during the nighttime for outdoor activity areas of noise-sensitive land uses. In addition, new stationary noise sources shall be required to mitigate noise levels so as not to exceed the maximum sound level of 70 dB during the daytime and 65 dB during the nighttime for outdoor activity areas of noise-sensitive land uses.

## Environmental Impacts and Mitigation Measures

### a) Exposure to Noise Exceeding Local Standards.

The potential for noise impact is related to noise levels and the noise sensitivity of potential receptors in the vicinity of the noise source. The nearest potential receptors are residences scattered throughout the project vicinity, the closest being more than one mile away.

Project construction activities would generate significant short-term noise. Grading, earthmoving and deposition of RSP would be the main construction activities, so equipment likely to be used would include dozers and excavators. Based on the equipment anticipated to be used, construction of proposed facilities and improvement may generate maximum noise levels ranging from 78 to 81 dBA at a reference distance of 50 feet (FHWA 2006). The noise level at a given distance from a source can be estimated using the Inverse Square Law of Noise Propagation (Harris 1991). Essentially, this law states that noise decreases by 6 dBA with every doubling of distance from a source. For example, if the noise from an industrial engine is 80 dBA at 50 feet, the noise at 100 feet would be 74 dBA, and at 200 feet would be 68 dBA. At one mile away, which is the distance to the nearest residence, the noise level would be approximately 40 dBA, well below County standards for noise exposure.

Construction noise is a short-term occurrence that would not result in significant or long-term effects. Construction activities are anticipated to occur during the hours of 6:00 am to 9:00 pm, in accordance with the exemption to construction noise provided in County Ordinance Code Section 9-1025.9. Also, the nearby levee would act as a noise barrier for land uses west of the project site. People using the adjacent segment of the San Joaquin River for recreational purposes may be exposed to construction noise, but this would be a short-term exposure that would cease with the completion of construction work. Impacts related to construction noise are considered less than significant.

### b) Exposure to Groundborne Vibrations.

Groundborne vibration is not a common environmental problem. It is typically associated with transportation facilities, although it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne

vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment.

The project would likely use some earthmoving equipment during construction. As the nearest sensitive receptors are more than one mile away, groundborne vibrations generated by this equipment are unlikely to reach these receptors. Project impacts would be less than significant.

c) Permanent Increase in Ambient Noise.

The project would not generate any noise once construction work is completed. The project would have no permanent impact on ambient noise levels.

d) Temporary or Periodic Increase in Ambient Noise.

The project would generate a temporary increase in ambient noise from construction activities. As described in a) above, construction noise impacts are considered less than significant.

e, f) Noise from Public Airports and Private Airstrips.

As described in Section 3.8, Hazards and Hazardous Materials, the nearest airport to the project site is New Jerusalem Airport. The project is not in an area subject to elevated noise levels from operations at New Jerusalem Airport, based on noise contours delineated in the San Joaquin County Airport Land Use Compatibility Plan (Coffman Associates 2009). There are no private airstrips in the vicinity. The project would have no impact on this issue.

### 3.13 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?				√

## NARRATIVE DISCUSSION

### Environmental Setting

As of January 1, 2017, the population of San Joaquin County was estimated at 746,868, of which 149,672 resided in the unincorporated area (California Department of Finance 2017). San Joaquin County had an estimated 241,021 housing units on January 1, 2017, of which 50,266 were in the unincorporated area. Single-family detached units (typical houses) accounted for approximately

72.9% of total housing units in the County, but approximately 82.7% of housing units in the unincorporated area (California Department of Finance 2017).

## Environmental Impacts and Mitigation Measures

### a) Population Growth Inducement.

The project would not construct residences or other development that would encourage population growth in the area. While the project would help protect the structural integrity of a nearby levee and thereby maintain flood protection for adjacent lands, these lands are agricultural and would remain so after project completion. The project would have no impact on population growth, either directly or indirectly.

### b, c) Displacement of Housing or People.

No housing or people are on the project site or in the immediate vicinity. The project would have no impact on this issue.

## 3.14 PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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- a) Fire protection?
- b) Police protection?
- c) Schools?
- d) Parks?
- e) Other public facilities?

			√
			√
			√
			√
			√

## NARRATIVE DISCUSSION

### Environmental Setting

Fire protection services are provided by the South County Fire Authority, the result of a merger of the City of Tracy Fire Department and the Tracy Rural Fire Protection District. The Fire Authority maintains a station at 1440 West Durham Ferry Road in the New Jerusalem area.

Law enforcement services for the project vicinity are provided by the San Joaquin County Sheriff's Department, with its main station in the community of French Camp. Elementary and middle school services in the project vicinity are provided by the New Jerusalem Elementary School District, while high school services are provided by the Tracy Unified School District.

The San Joaquin County Parks and Recreation Department provides park and recreational services to unincorporated San Joaquin County. There are no County parks in the project vicinity.

## Environmental Impacts and Mitigation Measures

### a) Fire Protection.

The project is erosion repair along a riverbank. As noted in Section 3.13, Population and Housing, the project would not construct residences or other development that would encourage population growth in the area. Because of this, it would not create additional demand for fire protection services. No new or expanded fire protection facilities that could have environmental impacts would be required. The project would have no impact on this issue.

### b) Police Protection.

The project would not create additional demand for police protection services. No new or expanded police protection facilities that could have environmental impacts would be required. The project would have no impact on this issue.

### c) Schools.

The project would not create additional demand for school services. No new or expanded school facilities that could have environmental impacts would be required. The project would have no impact on this issue.

### d, e) Parks and Other Public Facilities.

The project would not create additional demand for parks or other public facilities. No new or expanded facilities that could have environmental impacts would be required. The project would have no impact on this issue.

## 3.15 RECREATION

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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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?

			√
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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?

			√
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## NARRATIVE DISCUSSION

### Environmental Setting

As noted in Section 3.14, Public Services, the San Joaquin County Parks and Recreation Department provides park and recreational services to unincorporated San Joaquin County. There are no County parks in the project vicinity.

The San Joaquin River is used for recreational activities such as boating, fishing, and swimming. The Durham Ferry State Recreation Area, located approximately 1 mile southeast of the project site, was a State park that was closed in 1996 and is now owned by the San Joaquin County Office of Education, which uses the property for educational purposes. A portion of the San Joaquin National Wildlife Refuge is located along the Stanislaus River approximately 4 miles southeast of the project site. The refuge offers recreational activities such as wildlife viewing and photography.

### Environmental Impacts and Mitigation Measures

#### a, b) Recreational Facilities.

The project is erosion repair along a riverbank. As noted in Section 3.13, Population and Housing, the project would not construct residences or other development that would encourage population growth in the area. Because of this, it would not create additional demand for recreational facilities nor would it increase the use of existing facilities. No new or expanded facilities that could have environmental impacts would be required. The project would have no impact on this issue.

## 3.16 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 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?

			√
			√
			√

## NARRATIVE DISCUSSION

### Environmental Setting

The main road in the project vicinity is Kasson Road, also known as County Road J4. Kasson Road is a two-lane, north-south road approximately 1¼ miles west of the project site. It is accessible from Interstate 5 via the Kasson Road interchange. Kasson Road primarily serves traffic from adjacent agricultural operations and rural residences, as well as traffic associated with the San Joaquin River Club and the Deuel Vocational Institution to the north. The project vicinity has smaller County roads that primarily access farms and rural residences, and numerous private dirt roads that access agricultural lands. A road on top of the nearby levee is gated and is used mainly by RD 2085 vehicles.

No regular public transit service is provided to the project site or vicinity. There are no designated bike routes and no pedestrian sidewalks in the area. As mentioned in Section 3.8, Hazards and Hazardous Materials, the nearest public use airport is New Jerusalem Airport, which provides no scheduled passenger service.

### Environmental Impacts and Mitigation Measures

a) Consistency with Applicable Transportation Plans, Ordinances, and Policies.

The project would generate some traffic during construction activities, so it would have a temporary impact on traffic conditions on roads in the vicinity. Upon completion of construction work, the project would generate no traffic other than occasional visits by RD 2085 maintenance vehicles. No change would occur to traffic volumes on nearby roads. The project would have no impact on applicable plans, ordinances and policies related to traffic.

b) Conflict with Congestion Management Program.

The SJCOG adopted the latest version of its Regional Congestion Management Plan in 2012. The Regional Congestion Management Plan is designed to coordinate land use, air quality and transportation planning to reduce potential congestion from traffic generated by development. Since the project would not generate traffic, it would have no impact on activities designed to achieve the objectives of the Regional Congestion Management Plan.

c) Air Traffic Patterns.

The project would not generate air passenger demand. As discussed in Section 3.8, Hazards and Hazardous Materials, the project site is located outside the safety zones established for New Jerusalem Airport, so the project would not interfere with airport operations. The project would have no impact on air traffic.

d) Traffic Hazards.

The project site is located off the existing road system. As such, it would not alter or obstruct existing roads in the vicinity. The project would not generate traffic after project completion, and so would not contribute any traffic that would be incompatible with existing traffic in the area. The project would have no impact on traffic hazards.

e) Emergency Access.

As noted in Section 3.8, Hazards and Hazardous Materials, the project would be constructed away from public roads that would be used for emergency vehicle responses or for emergency evacuations. The project would not involve any land uses that would require emergency access. The project would have no impact on this issue.

f) Conflict with Non-Motor Vehicle Transportation Plans.

As there are no public transit facilities or other active transportation facilities (i.e., sidewalks and bicycle paths) in the project vicinity, the project would have no impact on non-motor vehicle transportation plans.

### 3.17 TRIBAL CULTURAL RESOURCES

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:

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

		√	
		√	

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

## NARRATIVE DISCUSSION

### Environmental Setting

In 2015, the California Legislature enacted AB 52, which focuses on consultation with Native American tribes on land use issues potentially affecting the tribes. The intent of this consultation is to avoid or mitigate potential impacts on “tribal cultural resources,” which are defined as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe.” More specifically, Public Resources Code Section 21074 defines tribal cultural resources as:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included or determined to be eligible for inclusion in the California Register of Historical Resources, or included in a local register of historical resources; or
- 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 [i.e., eligible for inclusion in the California Register of Historical Resources].

Under AB 52, when a tribe requests consultation with a CEQA lead agency on projects within its traditionally and culturally affiliated geographical area, the lead agency must provide the tribe with notice of a proposed project within 14 days of a project application being deemed complete or when the lead agency decides to undertake the project if it is the agency’s own project. The tribe has up to 30 days to respond to the notice and request consultation; if consultation is requested, then the local agency has up to 30 days to initiate consultation.

In 2016, the Governor’s Office of Planning and Research updated CEQA Guidelines Appendix G to include sample questions specifically addressing tribal cultural resources. These questions have been incorporated within this IS/MND.

As previously noted, the project site is located within lands claimed by the Northern Valley Yokuts at the time of initial contact with European-Americans. Section 3.5, Cultural Resources, discusses the Yokuts in more detail.

### Environmental Impacts and Mitigation Measures

#### a, b) Tribal Cultural Resources.

As noted in Section 3.5, Cultural Resources, no archaeological resources are known to exist on the project site or in the immediate vicinity. As part of the archaeological inventory survey conducted for the project, consultation was undertaken with the Native American Heritage Commission to determine if the project site was listed as a sacred land and to obtain a list of potentially interested Native American tribes. The Commission indicated that no sacred lands were recorded for the project site or adjacent lands.

The Commission provided a list of five local tribes with a potential interest in the project. Letters requesting more information were sent to each of these tribes, but no responses were received



from any tribe at the time the archaeological inventory survey was prepared. No tribes have sent a written request for consultation on this project.

Based on the results of the consultation and on information from the archaeological inventory survey, the project is unlikely to affect tribal cultural resources as defined by AB 52. Project impacts are considered less than significant. However, RD 2085 will comply with the consultation provisions of AB 52 should a tribe whose traditionally and culturally affiliated geographical area includes the project site request consultation.

### 3.18 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 stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				√
d) Are sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				√
e) Has the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				√
f) Is the project 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?				√

## NARRATIVE DISCUSSION

### Environmental Setting

The proposed project site is located in a rural area of San Joaquin County. Organized domestic water, sewage collection and treatment, and storm drainage services are not available in the project vicinity. Individual landowners have on-site water supply and sewage disposal as needed to support land uses on their properties. The project site has no existing storm drainage system;

runoff flows into the San Joaquin River on the waterside portion of the levee and onto adjacent land on the landside portion, where it percolates into the soil.

In the project vicinity, residential solid waste collection services are provided by Stockton Scavenger, although such service is not mandatory. San Joaquin County operates two landfills: the North County Sanitary Landfill on Harney Lane east of the City of Lodi, and the Foothill Sanitary Landfill on Waverly Road east of the community of Linden (San Joaquin County Solid Waste Division 2016).

## Environmental Impacts and Mitigation Measures

### a, e) Wastewater Systems.

The project is erosion repair along a riverbank. As noted in Section 3.13, Population and Housing, the project would not construct residences or other development that would encourage population growth in the area. Because of this, it would not generate a demand for wastewater services. The project would have no impact on this issue.

### b, d) Water Systems and Supply.

The project would not generate a demand for water services or on water supplies. The project would have no impact on this issue.

### c) Stormwater Systems.

The project would not generate a demand for stormwater services. The project would have no impact on this issue.

### f, g) Solid Waste Services.

The project would not generate a demand for solid waste collection services or landfill capacity. The project would have no impact on this issue.

## 3.19 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?

			√

## NARRATIVE DISCUSSION

### Finding a) – Biological and Cultural Resources.

The biological and cultural resource impacts of the project are described in Sections 3.4 and 3.5, respectively. Potentially significant environmental effects were identified in these issue areas, but mitigation measures that would be incorporated into the project would reduce all of these effects to a level that would be less than significant.

### Finding b) – Cumulatively Considerable Impacts.

As described in this Initial Study, the potential environmental effects of the project would either be less than significant, or the project would have no impact at all, when compared to the baseline. Where the project involves potentially significant effects, these effects would be reduced to a less than significant level with proposed mitigation measures and compliance with required permits and applicable regulations.

The potential environmental effects identified in this Initial Study have been considered in conjunction with each other as to their potential to generate other potentially significant effects. The various potential environmental effects of the project would not combine with other projects to generate any potentially significant adverse cumulative effects. There are no other known, similar projects with which the project might combine to produce adverse cumulative impacts. In combination with other proposed levee improvements in San Joaquin County, the project would have a cumulatively beneficial impact by providing improved flood protection for the area.

### Finding c) – Adverse Effects on Human Beings.

Potential adverse effects on human beings were discussed in Section 3.6, Geology and Soils (seismic hazards); Section 3.8, Hazards and Hazardous Materials; Section 3.9, Hydrology and Water Quality (flooding); and Section 3.16, Transportation/Traffic (road hazards). No potential adverse effects on human beings were identified in these sections. The project would have a beneficial effect for people residing and working in the vicinity, as it would assist in maintaining the structural integrity of a levee, thereby reducing the potential for breaching and consequent flooding.

## 4.0 REFERENCES

### 4.1 DOCUMENT PREPARERS

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This IS/MND was prepared by BaseCamp Environmental for use by and under the supervision of Reclamation District No. 2085. The following persons were involved in preparation of the IS/MND:

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#### 4.4 PERSONS CONSULTED

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## 5.0 NOTES RELATED TO 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 (CEQA Guidelines Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
  - a) Earlier Analyses 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.
- 8) The checklist in CEQA Guidelines Appendix G is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance.