COUNTY OF MERCED STREAMS GROUP FLOOD CONTROL CHANNEL MAINTENANCE PROGRAM

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared for:
Merced County Department of Public Works
715 Martin Luther King Jr. Way
Merced, CA 95341

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Draft: April 2019

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TABLE OF CONTENTS

TABLE OF FIGURES

TABLE OF TABLES

ACCRONYMS AND ABBREVIATOINS

AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
ACM	Asbestos Containing Materials
APE	area of potential effect
ASTM	American Society for Testing Materials
BIOS	Biogeographic Information and Observation System
BMP's	Best Management Practices
CA-99	California State Route 99
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resource Control Board
CBC	California Building Standards Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CNDDB	California Natural Diversity Database
CO	Carbon monoxide
CPUC	California Public Utilities Commission
CVFPB	Central Valley Flood Protection Board
CWA	Clean Water Act
CWHR	California Wildlife Habitat Relationships
dBA	A-weighted decibels
dbh	diameter at breast height
DTSC	Department of Toxic Substance Control
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
FCAA	Federal Clean Air Act
FESA	Federal Endangered Species Act
FFRMS	Federal Flood Risk Management Standard
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and monitoring Program
GHG	Greenhouse Gases
H_2S	Hydrogen Sulfide
HWCL	Hazardous Waste Control Law
I-5	Interstate 5

in/sec	inches per second
IPaC	Information for Planning and Consultation Database
IS	Initial Study
L_{eq}	Equivalent Sound Level
L_{max}	Maximum Sound Level
LRFD	Load and Resistance Design Factor
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
NAAQS	National Ambient Air Quality Standards
ND	Negative Declaration
NMFS	National Marine Fisheries Service
NO_2	Nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OHWM	Ordinary high-water mark
Pb	Lead
PG&E	Pacific Gas & Electric
PM_{10}	Particulate matter smaller than 10 microns
$PM_{2.5}$	Particulate matter smaller than 2.5 microns
ppv	peak particle velocity
PRC	Public Resources Code
RACT	Reasonably Available Control Technology
RCRA	Resource Conservation and Recovery Act
ROW	Right of way
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	Sulfur Dioxide
SSP	Standard Special Provision
SWMP	Storm Water Management Program
U.S.	United States
UBC	Uniform building code
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
VDE	visible dust emissions
WDR	Waste Discharge Requirements

INTRODUCTION

Merced Streams Group (MSG) proposes to continue the Flood Control Channel Maintenance Program within Merced County, California. As required by the California Environmental Quality Act (CEQA) (California Public Resources Code [CA PRC] Sections 21000 *et seq*.), the County has prepared this Initial Study (IS) to determine whether the project may have a significant effect on the environment.

1. Legal Authority and Findings

The County of Merced is the Lead Agency pursuant to CEQA.

The County has prepared this IS in accordance with the *Guidelines for the Implementation of CEQA* (CEQA Guidelines) (California Code of Regulations [CCR], Title 14, Chapter 3, Sections 15000 et seq.). Although consultants assisted in the preparation of this IS, all analysis, conclusions, findings and determinations presented in the IS represent the County, acting as the Lead Agency under CEQA. In accordance with the provisions of CEQA and the State and local CEQA Guidelines, as the Lead Agency, the County is responsible for reviewing the potential environmental effects, and after consideration, approving or denying the project.

2. Document Purpose

Section 15063(c) of the CEQA Guidelines defines an IS as the proper preliminary method of analyzing the potential environmental consequences of a project. The purposes of an IS are:

- To provide the Lead Agency with the necessary information to decide whether to prepare an Environmental Impact Report (EIR), a Mitigated Negative Declaration, or a Negative Declaration;
- To enable the Lead Agency to modify a project and mitigate adverse impacts, thus avoiding the need to prepare an EIR; and
- To provide sufficient technical analysis of the environmental effects of a project to permit a judgment based on the record as a whole, that the environmental effects of a project have been adequately mitigated.
- Section 15070 of the CEQA Guidelines states that a public agency must prepare a ND or a Mitigated Negative Declaration (MND) for a project subject to CEQA when:
    - The IS shows that there is no substantial evidence, considering the whole record before the agency, that the project may have a significant effect on the environment; or
    - The IS identifies potentially significant effects but:
        - Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed MND and IS are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and
        - There is no substantial evidence, considering the whole record before the

agency, that the project as revised may have a significant effect on the environment.

An IS/MND may be used to satisfy the requirements of CEQA when a proposed project would have no significant unmitigable effects on the environment. As discussed further in subsequent sections of this document, implementation of the proposed project would not result in any significant effects on the environment that cannot be reduced to a level below significance with the mitigation measures included herein.

3. Document Organization

Section I – Introduction: Describes the CEQA context and purpose of an IS/MND.

Section II – Environmental Checklist: Provides background information on the Lead Agency (Merced County) and describes the project.

Section III – Environmental Factors Potentially Affected: Identifies Potentially Significant Impacts, which are later explained in Section V.

Section IV – Determination: Presents the determination regarding the appropriate environmental document for the project.

Section V – Evaluation of Environmental Impacts: Provides discussions of the possible environmental effects of the project for specific issue areas that have been identified on the *CEQA Environmental Checklist*. For each issue area, potential effects are discussed and evaluated.

4. Terminology

A "significant effect" is defined by Section 15382 of the CEQA Guidelines as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." According to Section 15358 of the CEQA Guidelines, "an economic or social change by itself shall not be considered a significant effect on the environment but may be considered in determining whether the physical change is significant."

ENVIRONMENTAL CHECKLIST

1. Project Title

County of Merced Streams Group Flood Control Channel Maintenance Program

2. Lead Agency Name and Address

Merced County Department of Public Works

715 Martin Luther King Jr. Way

Merced, CA 95341

3. Contact Person and Phone Number

Joe Giulian, Deputy Public Works Director

(209) 385-7601

jgiulian@co.merced.ca.us

4. Project Location

Approximately 139 miles of flood control channels in eastern Merced County and Los Banos Creek in western Merced County, California

5. Project Proponent's Name and Address

Merced Streams Group

715 Martin Luther King Jr. Way

Merced, CA 95341

6. General Plan Designation

County right of way (ROW) (Merced County, 2017)

7. Zoning

Agricultural (A-1: A-R), City limit (C-1: C-3), and residential (R1: R4) (Merced County, 2017)

8. Project Description

The County proposes to continue the Flood Control Maintenance Program throughout the authorized areas within Merced County, California (see **Figure 1** and **Figure 2**).

The proposed project is the continued implementation of the flood control maintenance program and incidental routine activities for water conveyance in natural streams that has been employed in Merced County. The MSG defines 'project' as maintenance activities that occur within the stream channel in diverse locations in the County of Merced. The Flood Control Channel Maintenance Program involves the maintenance of a number of flood control channels in eastern Merced County and one channel in western Merced County to provide adequate capacity for

conveyance of specified flood flows. The program has been in place for numerous years. Because the program involves activities within the bed and bank of creeks and streams, this program has been subject to state regulations (Fish and Game Code 1600-1617) for the protection of lakes and streams in the state. This maintenance program has been implemented under the Programmatic Stream Maintenance Agreement California Fish and Game Code Section 1602 Stream Alteration Notification No. 2005-0168-R4 Various Streams – Merced County between the program-implementing entity and the California Department of Fish and Wildlife (CDFW).

The current agreement has expired. In order to continue the program, the process requires the submission of a notification so that the proposed activities can be reviewed by the CDFW and new Lake and Streambed Alteration Agreements (SAA) can be executed. CDFW has informed the County that the notification must be accompanied by a duly-approved CEQA compliance document. Therefore, the purpose of this IS is to evaluate the environmental effects from the continued implementation of the maintenance program. The program is described below in terms of the need for the program and the types of activities that would continue to be conducted pursuant to the program.

Background

Merced County is bordered to the east by the Sierra Nevada and to the west by the Diablo Range. Streams and rivers that descend from these mountain ranges to the flat Central Valley floor lose velocity and result in flooding. Central Valley experiences two types of floods (1) general rainfall floods occurring in late fall and winter in the foothills and valley floor, and (2) snowmelt floods occurring in late spring and early summer. Most of the floods in Merced County are produced by rainfall during winter months. Central parts of the county are especially prone to floods.

To address this problem around the City of Merced and Atwater, since the 1950s, a series of flood control improvements were implemented on a group of streams (Canal, Edendale, Fahrens, Mariposa, Miles, Owens, Black Rascal, Bear, and Burns creeks) under what was called the Merced County Streams Group (MSG) project. Other un-improved channels of Black Rascal and Cottonwood creeks are also maintained. The improvements included maintenance of dams and reservoirs to control flood flows as well as improvements to channels downstream of the dams to increase channel capacities. Channel improvements included modifications to the bed and banks of the channels in several locations, maintenance of levees, drop structures, erosion control measures, diversion and control structures, gauging station sites, pipeline and road crossings and bypasses. At the time the Army Corps of Engineers and the State Board of Reclamation agreed to implement this flood control project, the County entered an agreement with the Reclamation Board that it would be responsible for the routine maintenance of the facilities so that adequate channel capacities are maintained, and the system performs as designed. Similarly, more recent flood control projects have been constructed on Los Banos Creek in western Merced County and Canal Creek (Castle Reservoir) in Eastern Merced County, and the County is charged with the maintenance of channel capacity. On behalf of the County, the Central California Irrigation District (CCID) performs this maintenance work in Los Banos Creek. The City of Merced, Merced County and Merced Irrigation District (MID) perform maintenance work on all other channels (detailed below) through an informal, collaborative agreement known as the "Merced Streams Group."

Channel maintenance is needed for a number of reasons. In some areas, the soils on the valley floor are highly susceptible to erosion. Stream banks erode, especially during high flows, and sediment is washed into the channel, reducing channel capacity. Channel capacity is also reduced

by the accumulation of debris, fallen trees and shrubs, and growth of aquatic vegetation. Vegetation growth is the primary maintenance issue for channels in Merced County because these channels are used to convey irrigation water and therefore contain water year-round as a result of irrigation releases during the summer and fall, and storm water runoff during the winter and spring.

To maintain channel capacity and control erosion of stream banks the Merced Streams Group (MSG) implements a routine maintenance program in flood control channels in eastern Merced County. **Figure 2** shows the flood control channels that are maintained by the MSG. Additionally, the CCID on behalf of the County conducts routine channel maintenance work in Los Banos Creek in western Merced County (also shown on **Figure 2**). The proposed project is the continuation of the MSG channel maintenance program in eastern Merced County and Merced County's channel maintenance program for Los Banos Creek to ensure that flood control channel capacities are not reduced through the accumulation of sediment, debris and vegetation. Routine annual maintenance work associated with MID's operations of the portions of certain creeks for water supply conveyance are also included in the proposed project. A brief description of each of the affected channels is provided below, followed by a description of the maintenance activities.

Affected Channels

Channels included in the proposed project are highlighted on **Figure 2**. Generally, these channels are ephemeral creeks, meaning they only flow for short periods after rain events. During the summer, MID conveys irrigation water supplies through portions of the creeks, which otherwise would be dry during these periods. The rainy season can overlap the irrigation season in October, March, April and May.

Bear Creek: This is a major stream that originates in neighboring Mariposa County, traverses the central portions of Merced County, to terminate in the San Joaquin River East Side Bypass. Flood control levees are present on both or at least one side of the creek throughout its length. The reach of this creek that would be subject to continuing routine maintenance extends from two miles upstream from the confluence of Burns Creek on the east to approximately 500 feet west of Bert Crane Road, a distance of approximately 25 miles. Approximately one quarter of this reach (6.3 miles) is located within urban areas (City of Merced).

Black Rascal Creek Diversion Channel: This channel with man-made levees originates on natural Black Rascal Creek approximately one mile north of East Yosemite Avenue and flows due south a distance of 1.9 miles to its confluence with Bear Creek upstream from the City of Merced.

Black Rascal Creek (un-improved): This creek is a major tributary of Bear Creek that originates in northeastern Merced County and flows in a southwesterly direction to its confluence with Bear Creek near Highway 99 between Merced and Atwater. More than a half of the length of this creek is within the City of Merced. The reach that will be subject to continuing routine maintenance extends from the Fairfield Canal near the Black Rascal Creek diversion channel on the east to the creek's confluence with Bear Creek south of Highway 99, an approximate distance of 10.5 miles. There are no flood control levees along this creek.

Black Rascal Creek (improved): This channel originates from Bear Creek south of Highway 99 at Crocker Dam and flows southwesterly to converge again with Bear Creek near Bert Crane Road. The entire length of the creek would be subject to continuing routine maintenance. Levees are

present along some sections of this creek. This channel provides approximately half of the flood control capacity for storm water flowing in Bear Creek downstream from Crocker Dam to its convergence with Bear Creek near Bert Crane Road, an approximate distance of 7.8 miles.

Burns Creek: Burns Creek is a tributary of Bear Creek. The reach that would be subject to continuing routine maintenance has no levees. It extends from one-mile upstream of Bear Creek to the creek's confluence with Bear Creek, an approximate distance of one mile.

Canal Creek: Canal Creek, a tributary of Black Rascal Creek, originates in northern Merced County and flows in a southwesterly direction to converge with Black Rascal Creek near Atwater. The reach of this creek that would be subject to continuing routine maintenance has some artificially raised levee-like banks. It extends from the Main Canal through Castle Reservoir to its confluence with Black Rascal Creek, an approximate distance of 23.2 miles.

Cottonwood Creek: This creek originates southeast of Lake Yosemite and flows south and southwest to converge with Fahrens Creek in the northerly part of the City of Merced. The reach that would be subject to continuing routine maintenance has no levees. It extends from the Fairfield Canal on the east to Cottonwood Creeks' confluence with Fahrens Creek on the west, an approximate distance of 6.8 miles.

Edendale Creek: This is a tributary of Canal Creek that originates in northern Merced County and flows in a southwesterly direction to converge with Canal Creek near Oakdale Road. The reach of this creek that would be subject to continuing routine maintenance extends from the Main Canal to its confluence with Canal Creek, an approximate distance of 2.9 miles.

Fahrens Creek: Fahrens Creek is a tributary of Black Rascal Creek. The reach of this creek that would be subject to continuing routine maintenance has some artificially raised levee-like banks. It extends from the Main Canal gates, northwest of Lake Yosemite, and flows southeast towards the City of Merced to its confluence with Black Rascal Creek, an approximate distance of 7 .9 miles.

Los Banos Creek: Los Banos Creek originates from the slopes of the Diablo Range in the western section of the county, flows northwest through the Los Banos Grandes Reservoir, just east of I-5, towards the City of Los Banos and into Mud Slough, a slough of the San Joaquin River. The maintained section of the creek starts at the Los Banos Grandes Reservoir, continues for approximately 11 miles, through the town of Trent, ending at the China Camp Road Bridge. The maintained section of Los Banos Creek is a natural drainage system with sections containing artificially raised earthen banks.

Mariposa Creek: This creek (also known as Duck Slough) originates in Mariposa County, flows west through central Merced County to terminate at the East Side Canal/Mariposa Bypass. The reach that would be subject to continuing routine maintenance has some artificially raised levee-like banks extends from 1 mile upstream from Fresno Road to Highway 59, an approximate distance of 19.5 miles.

Miles Creek: This creek originates in Mariposa County and flows west through central Merced County to terminate at its second confluence with Owens Creek near Roduner Dam. The maintained length is approximately 16.4 miles long, starting approximately at Burchell Road, south of State Route 140, and ending at State Highway 59. The creek contains artificially raised earthen banks.

Owens Creek: Owens Creek originates in Mariposa County, flows west through central Merced County until it reaches its confluence at the East Side Canal Bypass of the San Joaquin River. The reach that would be subject to continuing routine maintenance extends from the confluence with Miles Creek located downstream from Highway 99 to Puglizevich Dam where it again divides from Miles Creek, an approximate distance of 1.25 miles.

Owens Creek and Diversion Channel: The Owens Creek and Diversion Channel originates at North Cunningham Road Bridge and flows to its confluence at Mariposa Creek. The reach that would be subject to continuing routine maintenance extends from Cunningham Road downstream to Mariposa Creek. The creek is re-routed south at Mission Avenue into a man-made bypass channel with levees that parallels east of Burchell Road and connects to Mariposa Creek south of Santa Fe Avenue, an approximate distance of 1.95 miles. The total distance of channel maintained from Cunningham Road to Mariposa Creek is 3.5 miles.

Alternative 1: No Project Alternative

Under this alternative, the flood control maintenance program would cease to exist. The MSG would not be able to do routine maintenance and/or repairs to maintain channel capacity to authorized streams throughout Merced County without obtaining a permit for each named reach above. MID would not perform its routine annual maintenance work associated with MID's operations on portions of certain creeks for water supply conveyance, resulting in agricultural lands losing their access to their only water supplies. This alternative would not achieve the desired safety improvements or maintain channel capacity at the above locations and would prohibit MID from fulfilling its mission of providing water supply to certain agricultural lands and would therefore, not meet the project purpose and need.

Alternative 2: Build Alternative

The MSG would continue maintenance activities in various streams within the bank, bed, channels, waterways, and areas associated with on-going required maintenance activities. Maintenance activities would continue within sections of Bear Creek, Black Rascal Creek, Burns Creek, Canal Creek, Cottonwood Creek, Edendale Creek, Fahrens Creek, Los Banos Creek, Mariposa Creek, Miles Creek, and Owens Creek, only within the operational maintenance boundaries. These areas are defined within the table below and **Figure 2**.

Table 1. Streams Group Various Stream Sections

Creek/Slough	From:	To:	Approx. Mileage
Bear Creek	Waltz Road bridge	500 feet west of Bert Crane Road	25
Black Rascal Creek Diversion	One mile upstream from Yosemite Avenue	Bear Creek	1.9
Black Rascal Creek	Crocker Dam	Bear Creek	7.8

Black Rascal Creek	Fairfield Canal	Bear Creek	10.5
Burns Creek	One mile upstream from Bear Creek	Bear Creek	1
Canal Creek	Main Canal	Black Rascal Creek	23.2
Cottonwood Creek	Fairfield Canal	Fahrens Creek	6.8
Edendale Creek	Main Canal	Canal Creek	2.9
Fahrens Creek	Main Canal	Black Rascal Creek	7.9
Los Banos Creek	Los Banos Grandes Reservoir	China Camp Road	11.0
Mariposa Creek	One mile upstream from Fresno Road	Highway 59	19.5
Miles Creek	Burchell Road	Highway 59	16.4
Owens Creek	Miles Creek	Puglizevich Dam	1.25
Owens Creek and Diversion	Cunningham Road	Mariposa Creek	3.5
Total Approx. Miles			**139**

The maintenance activities that will continue to be performed pursuant to the proposed project are described below. Schematic **Figures 3.1** through **3.5** illustrate the terminology used below and show the areas within which the various types of channel maintenance activities would generally take place.

The Merced County Streams Group has proposed the following scope of work.

- Selective removal of living or dead vegetation (except large native trees, >4 inches at DBH along the upper half of the bank, sediment, and/or debris, which are an obstruction to flow, from channel bottom and the bottom half of the banks or from the entire cross section. The selective removal of brush and/or invasive weeds from the top half of the banks in order for maintenance equipment to reach the lower half of the banks. The subject materials must be in clear danger of falling into the channel, or material which could significantly reduce channel capacity and/or would result in accelerated erosion. The established access roads on top of the banks may be cleared of brush and overhanging limbs for safe access and fire prevention;

- Mow or rake out grasses and emergent aquatic vegetation within channel, from toe-to-toe and lower half of the banks.
- Remove non-native vegetation within the bank, bed and channel.
- Trim overhanging limbs.
- Remove trash and debris from all steam banks, bed and channels.
- Minor erosion control to a maximum of 25 feet vertically from the channel toe.
- Repair of previous erosion control work.
- Repair of channel for such things as eroded banks, sloughing and scouring.
- Maintenance and repair of existing gauging stations, water diversion and control structures, bridges, flumes and siphon crossings, including removal of accumulated debris and sediment, and repairs and replacements of structure components as necessary.
- Continued annual installation and removal of an earthen cofferdam for operational purposes in Black Rascal Creek.
- Sediment removal from the channel bottom as needed.
- Rodent control, as needed, by means of bait stations with monitoring and rodent hole collapse with compacting.

Some of the proposed work would be completed "above ground," and some would be completed "below ground." For the purposes of this document, the following defines "above ground" and "below ground" maintenance activities:

- Above Ground (no excavation) Maintenance Activities consist of the following:
    - Removing debris, modern trash, downed trees (grinding of tree stumps is permitted; root ball removal is prohibited), woody and herbaceous vegetation and branches obstructing channels or streams;
    - Mowing or cutting weeds, grasses, shrubs and woody undergrowth;
    - Trimming tree branches or hedges.
- Below Ground Maintenance Activities consist of the following:
    - Mechanically (including the use of backhoes, excavators, dump trucks, skip loaders, front loaders, bulldozers, etc.) altering vegetation, the ground surface, or dirt, such as removing deposited sediment, repairing and/or maintaining erosion control, or channel alignment maintenance, etc.;
    - Removing standing dead or living trees that would include root ball removal;
    - Installation of rock slope protection, rock gabions, and/or sacked concrete/rocks.

Project Timing: Maintenance activities shall be performed at a time and in a manner so that the proposed maintenance activities minimize adverse impacts and provide for the protection and continuance of the fish and wildlife resource and as follows:

- Maintenance activities shall be completed when the area is dry or during the lowest annual flow.
- Maintenance activities shall be limited to periods when actively nesting birds are not present.
- If work takes place outside of this window of time, the MSG shall perform biological surveys as detailed herein.

9. Surrounding Land Uses and Setting

Merced County is in the Central Valley area of California, a flat valley that dominates the central portion of the state. The Central Valley is a major agricultural region. The maintenance sites are along various streams located within Merced County. The Flood Control Channel Maintenance Program includes approximately 139 miles of flood control channels. These flood control channels are in the eastern part of Merced County, with one stream in the western part of Merced County.

The lands surrounding the flood control channel maintenance areas are primarily agricultural that have been or are being used for irrigated row crops, orchards, and field crops. There are corridors of riparian vegetation existing along the banks of the creeks in most areas. In some places the surrounding land use is urban; for instance, Bear and Black Rascal Creeks traverse through the central portions of the City of Merced.

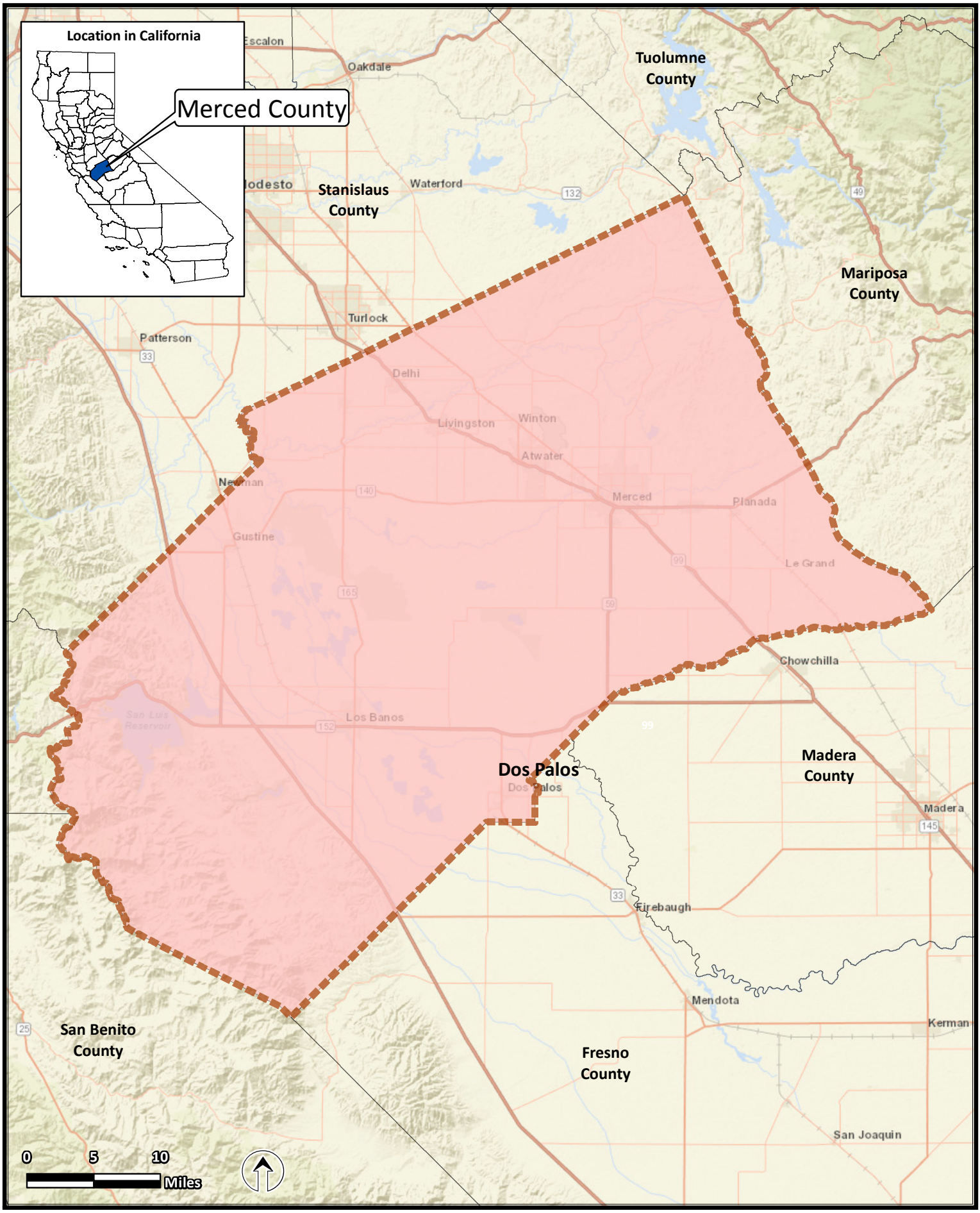
10. Other Public Agencies whose Approval is Required

Approvals or permits from other public agencies may be required, depending on the nature of the specific repair, maintenance, or replacement activity identified at each site. Below is a list of other potential public agency approvals that may be required:

- County: Various construction, grading, and encroachment permits

11. Public Resources Code section 21080.3.1

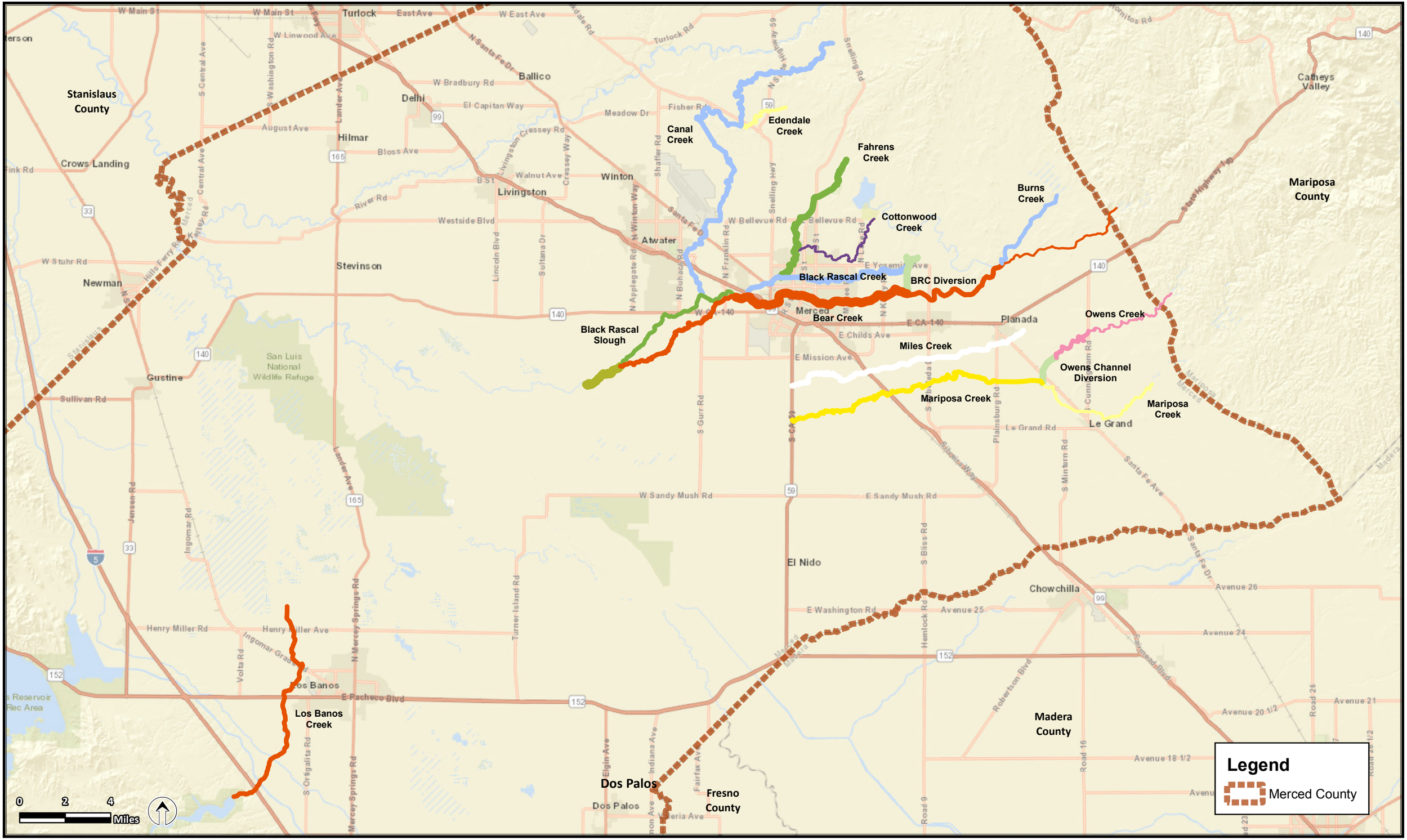
A Native American Tribes contact list was provided and the listed tribes were notified of the project via mail on December 10, 2018. No response letters were received by the Merced County Streams Group.



Source: ESRI 2018.

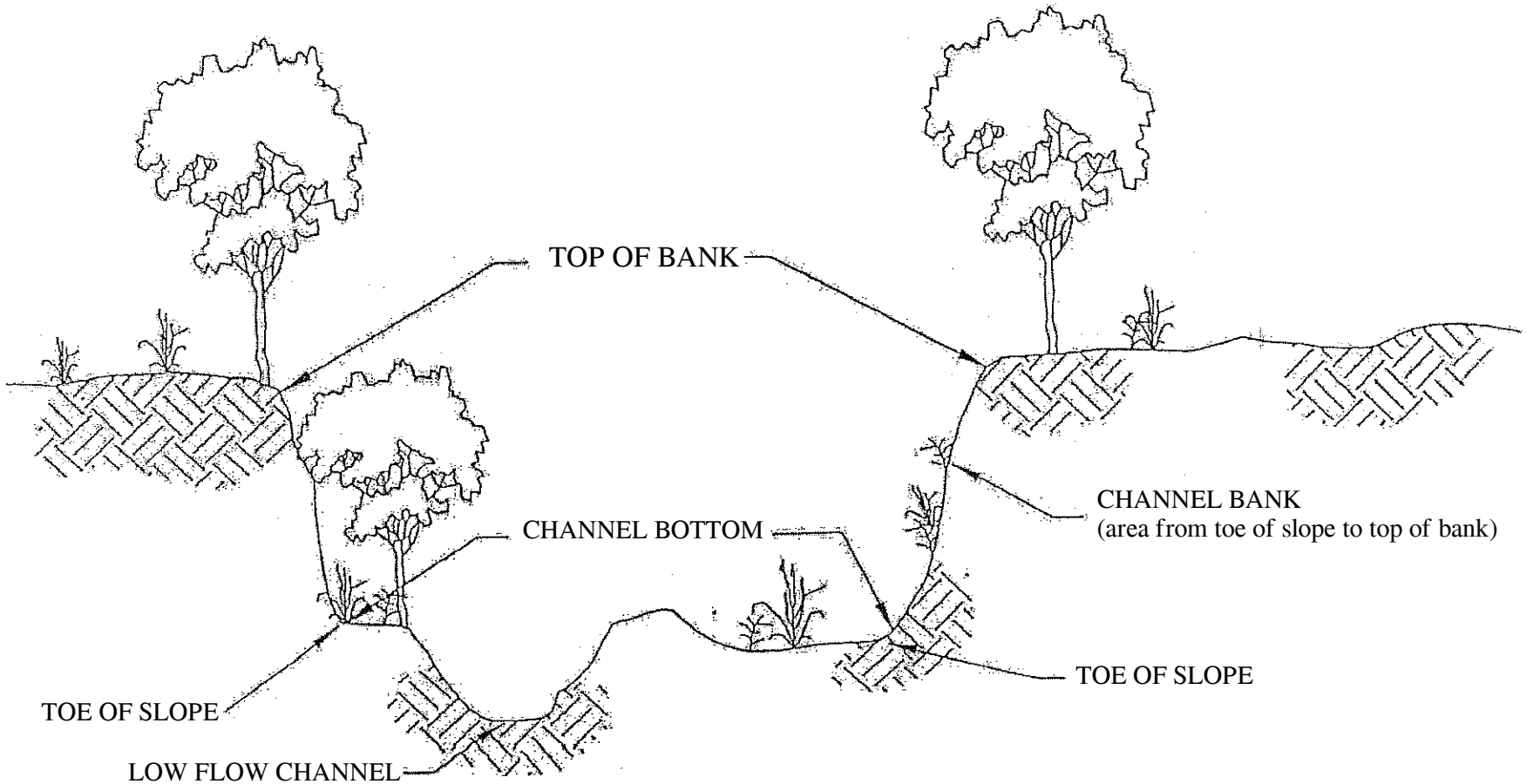
FIGURE 1. REGIONAL LOCATION MAP

County of Merced Streams Group Flood Control Channel Maintenance Program

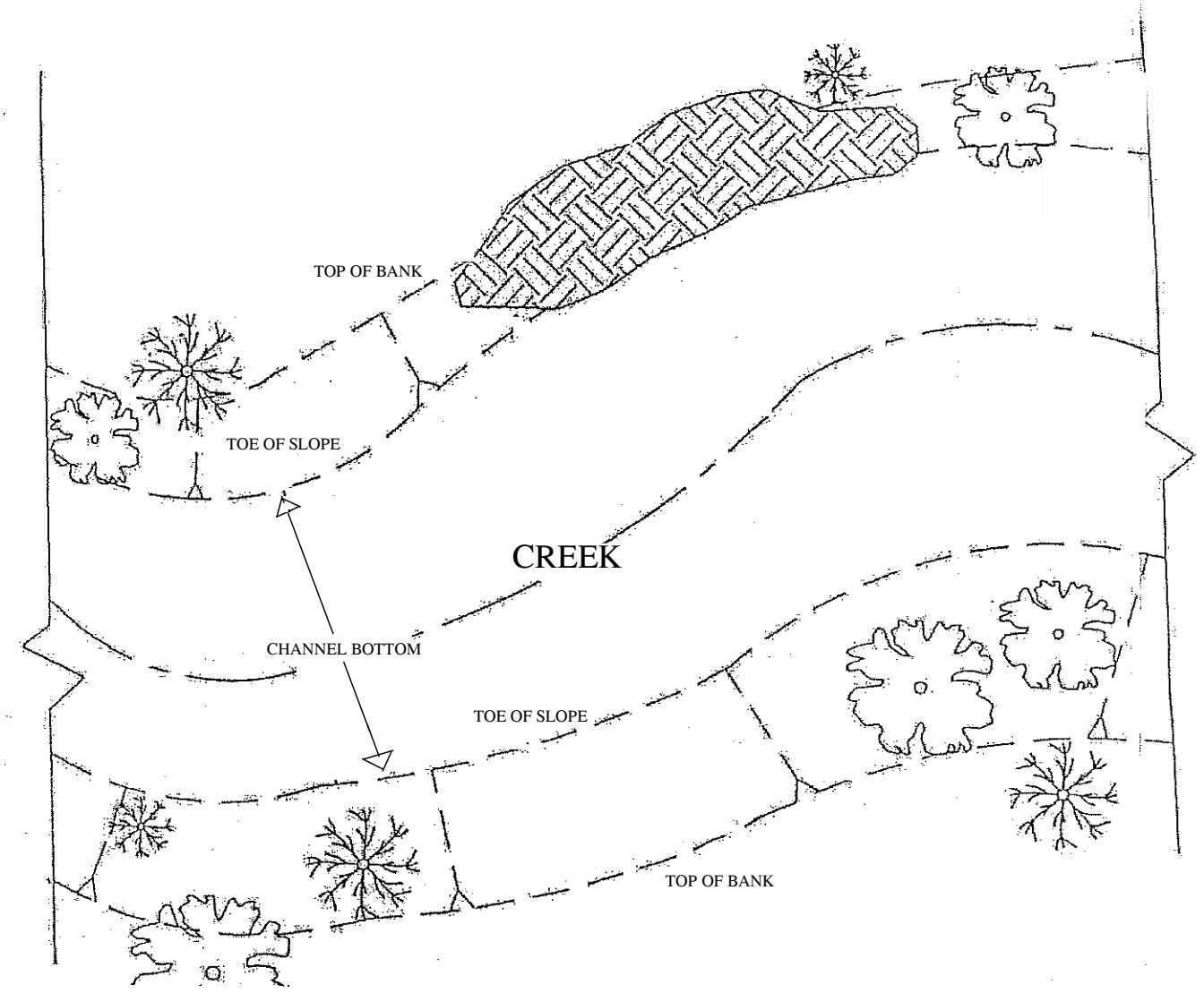


Source: Merced County 2018; ESRI 2018.

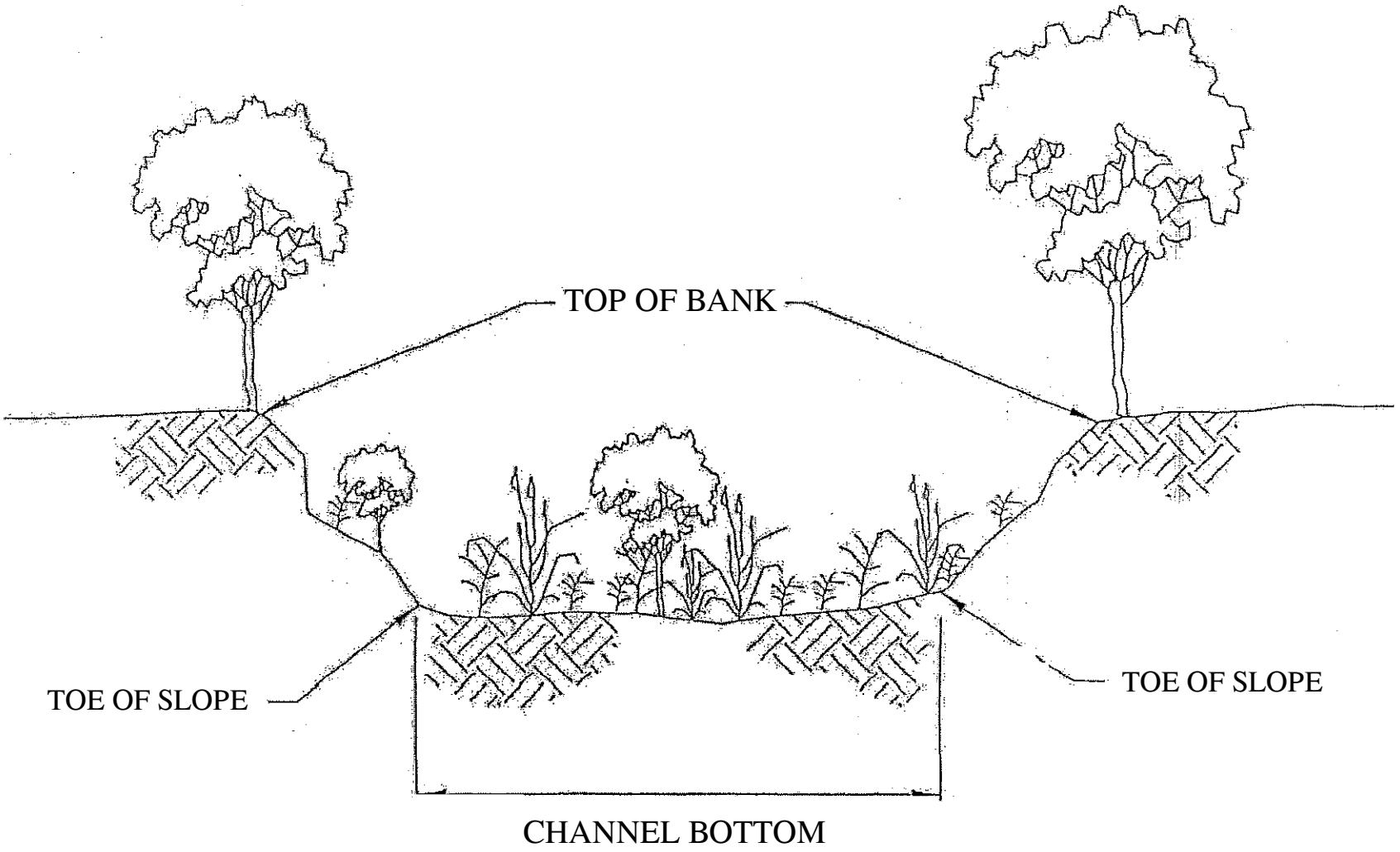
FIGURE 2. STREAMS LOCATION MAP
County of Merced Stream Group Flood Control Cannel Maintenance Program



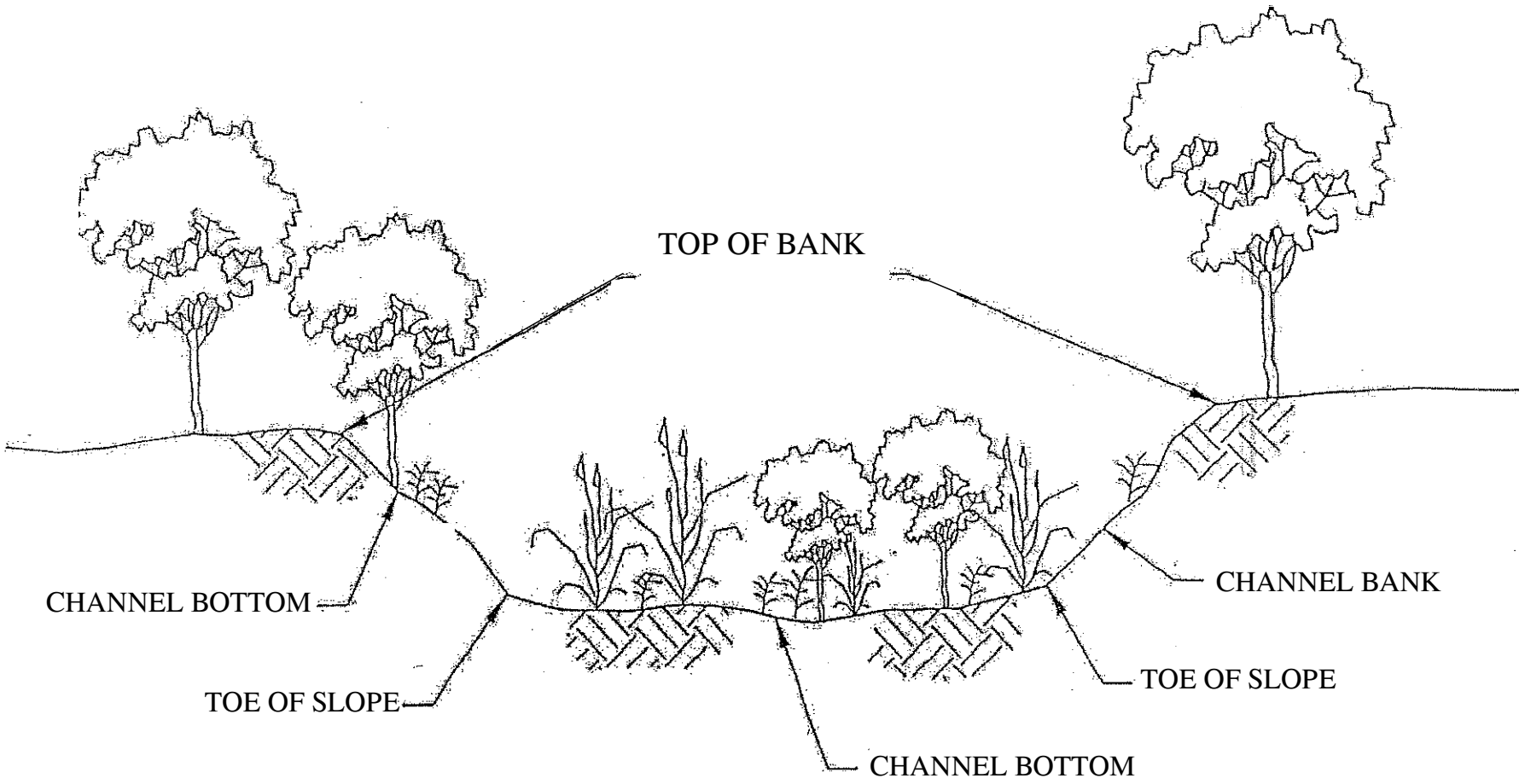
County of Merced Streams Group Flood Control Channel Maintenance Program	TYPICAL UNIMPROVED CHANNEL CROSS-SECTION: TERMINOLOGY	Figure 3.1



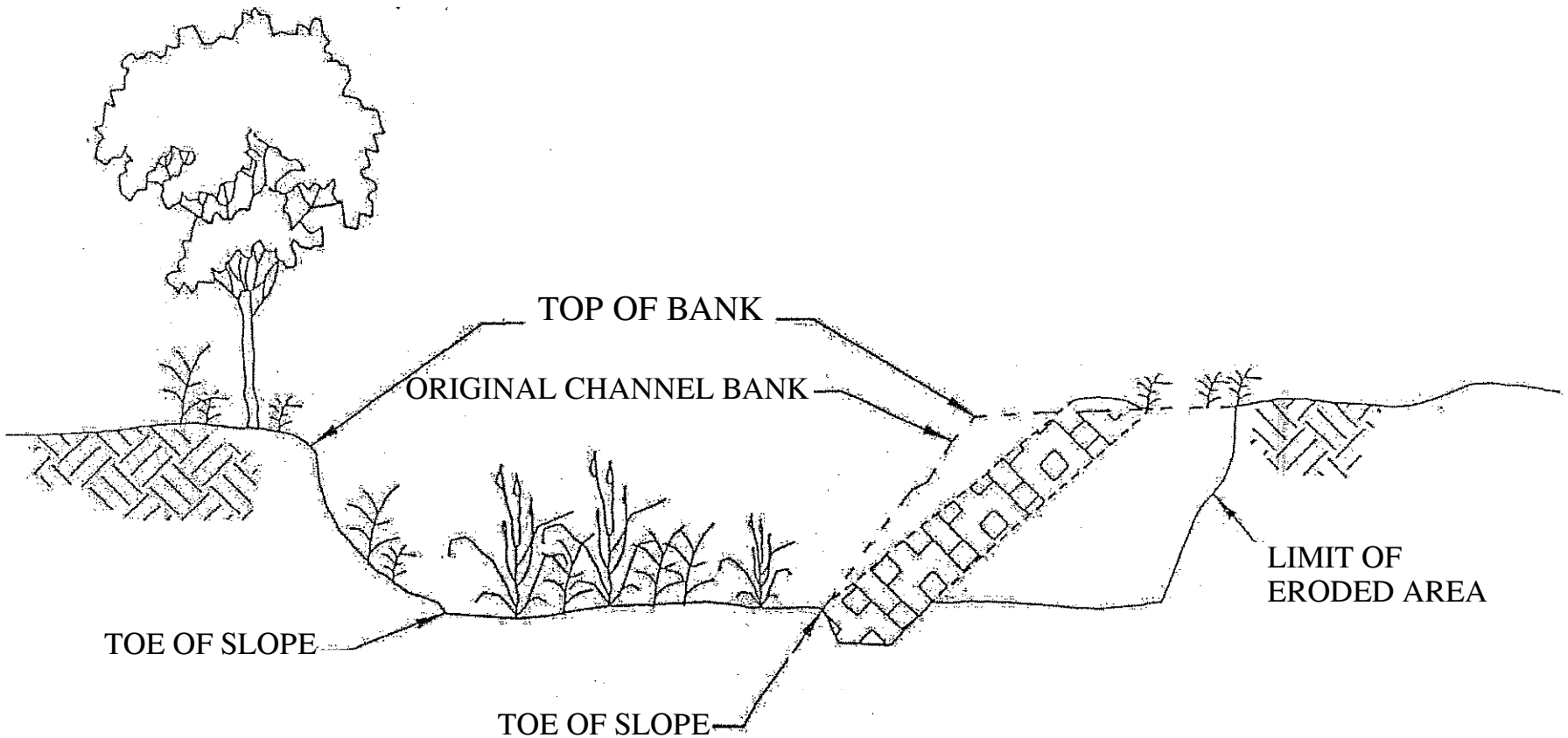
County of Merced Streams Group Flood Control Channel Maintenance Program	TYPICAL UNIMPROVED CHANNEL PLAN VIEW: TERMINOLOGY	Figure 3.2



County of Merced Streams Group Flood Control Channel Maintenance Program	TYPICAL CHANNEL CROSS SECTION: CONTROL OF AQUATIC AND WOODY GROWTH	Figure 3.3



County of Merced Streams Group Flood Control Channel Maintenance Program	TYPICAL CHANNEL CROSS SECTION: CONTROL OF NON-NATIVE VEGETATION	Figure 3.4



County of Merced Streams Group Flood Control Channel Maintenance Program	TYPICAL CHANNEL CROSS SECTION: MINOR EROSION CONTROL WORK	Figure 3.5

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DETERMINATION

Based on this initial evaluation:

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

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

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

Signature	4-10-19 Date
JOE GIACIAN Printed Name	Merced County For

EVALUATION OF ENVIRONMENTAL IMPACTS

Potential environmental effects of the project are classified and described within the *CEQA Environmental Checklist* under the following general headings:

"No Impact" applies where the impact simply does not apply to projects like the one involved. For example, if the project area is not located in a fault rupture zone, then the item asking whether the project would result in or expose people to potential impacts involving fault rupture should be marked as "No Impact."

"Less Than Significant Impact" applies where the impact would occur, but the magnitude of the impact is considered insignificant or negligible. For example, a development which would only slightly increase the amount of surface water runoff generated at a project area would be considered to have a less than significant impact on surface water runoff.

"Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." Incorporated mitigation measures should be outlined within the checklist and a discussion should be provided which explains how the measures reduce the impact to a less than significant level. This designation is appropriate for a Mitigated Negative Declaration, where all potentially significant issues have been analyzed and mitigation measures have been recommended that reduces all impacts to levels that are less than significant.

"Potentially Significant Impact" applies where the project has the potential to cause a significant and unmitigable environmental impact. If there are one or more items marked as "Potentially Significant Impact," an EIR is required.

1. Aesthetics

Regulatory Setting

Local Regulations

2030 Merced County General Plan

The Natural Resources Element of the 2030 Merced County General Plan (General Plan) identifies the following policies as they relate to aesthetics for the project. (Merced County, 2013).

- Policy NR-4.1: Scenic Resource Preservation. Promote the preservation of agricultural land, ranch land, and other open space areas as a means of protecting the county's scenic resources.

Affected Environment

Throughout the approximately 139 miles of channels, there are various prominent visual elements found within the viewshed. The County considers its rural and agricultural landscapes to be the primary scenic resources and identifies its streams and river corridors as important established scenic vistas (Merced County, 2013b). Sensitive receptors to the project would be found in adjacent urban/residential areas, parks, trails, and other recreational areas within the county.

A large portion of the project area is below surface level, within stream and channel beds. Nearby residents adjacent to the creeks may have views of tree-lined channels or channels lined with rural vegetation. However, the primary visual resource type within the county is rural and/or agricultural. There are two scenic highways within the county, I-5 and State Route 152 (SR-152), each of these highways intersect with Los Banos Creek at one point and do not intersect with any other of the affected channels.

Environmental Consequences

Would the project:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion a): For purposes of determining significance under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public.

Stream and channel locations run through various and diverse landscapes throughout Merced County. The average landscape surrounding project sites consists of agricultural land, but some streams run through urban development and residential neighborhoods. Merced County identifies agricultural land, ranch land, and other open space as scenic resources. The project area would not be considered a scenic vista, but a contributing element to the larger surrounding scenic landscape.

The project would include the maintenance and repair of streams across Merced County, as described in Section 8, Project Description. The project would not result in any permanent visual changes in the project area. Therefore, a scenic vista would not be permanently affected as a result of the project. During project implementation, the removal of vegetation could temporarily impact scenery within creek channels near sensitive receptors. However, these impacts would be temporary and much of the project area would not be visible from surrounding areas. Therefore, impacts would be less than significant.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion b): Scenic highways are designated as part of an effort to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. According to the current Caltrans List of Officially Designated State Scenic Highways, there are two officially designated state scenic highways within Merced County: I-5 in western Merced County (north of SR-152) and SR-152 152 (west of I-5) (California Department of Transportation, 2015).

I-5 and SR-152 intersect with Los Banos Creek and do not intersect with any other of the MSG maintained channels. I-5 and Los Banos Creek intersect at one point wherein the channel is small and void of vegetation, buildings, or trees, making this portion of the channel unlikely to need maintenance that would alter the existing visual setting. In addition, SR-152 only intersects with Los Banos Creek at one point. At this point, the channel is lined with mature trees and sparse vegetation, the primary landscape within this area is rural agriculture scenery.

Considering the avoidance measures detailed in the project description and in the below avoidance section, project activities would not remove native mature trees greater than four inches in diameter. As such, the project would not substantially damage scenic resources on a state scenic highway. Therefore, impacts would be less than significant.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion c): Stream maintenance areas are in both rural, agricultural settings and within proximity of residential dwellings within the County and City of Merced. During project implementation, selective vegetation removal, mowing, and the trimming of overhanding tree limbs could cause temporary visual changes for sensitive receptors; however, these impacts

would be temporary, and avoidance measures have been identified to return the project area to conditions similar or better than the existing setting; see below.

The change in appearance of the project area as a result of project improvements would be minor because vegetation removal will be selective and limited to vegetation that could increase erosion or potentially cause stream blockage. As such, the project would not significantly change the visual character or quality of the area. Therefore, impacts would be less than significant.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion d): Existing sources of lighting in the project area are primarily associated with roadway vehicles and adjacent residential properties. During project implementation, lighting could be used to light the project area. Considering the avoidance measure listed below, project implementation would be limited to the hours of 7 a.m. to 6 p.m. in accordance with Merced County's Noise Ordinance, Title 18, Chapter 18.41. The light sources would be removed following completion, and light and glare would be returned to existing conditions.

The project would include the maintenance of streams in the project area and would not create any new permanent sources of light or glare. As such, the project would not result in substantial impacts on light or glare in the project area. Therefore, there would be no impact.

Avoidance

- The selective removal of brush and/or invasive weeds from the top half of the banks in order for maintenance equipment to reach the lower half of the banks. The subject materials must be in clear danger of falling into the channel, or material which could significantly reduce channel capacity and/or would result in accelerated erosion.
- Large native trees, >4 inches DBH along the upper half of the bank will not be removed.
- All staging equipment and debris would promptly be removed from the project area following implementation of project activity.
- Project implementation would be limited to the hours of 7 a.m. to 6 p.m. in accordance with Merced County's Noise Ordinance, Title 18, Chapter 18.41.

2. Agriculture and Forestry Resources

Regulatory Setting

State Regulations

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value (California Department of Conservation, 2015). The intent of the Williamson Act is to encourage voluntary land conservation, particularly conservation of agricultural land in California.

Affected Environment

All potential project sites are found within streams, creeks and other water channels within various locations in Merced County. Project sites are in urban and rural areas, however, most of the sites are in rural-agricultural regions. Project locations consist of riparian scrub, freshwater vegetation, ruderal, and grassland landscape. There are no agriculture or forest resources found within Merced County ROW.

Merced County has a large agriculture industry and is one of the national leaders in poultry and egg production. As of 2012, Merced County contained 2,486 farms that combined to total 978,667 acres of farmland (United States Department of Agriculture, 2012). Merced County ranked fifth in the state and the United States for total value of agricultural products sold in 2012. From 2007 to 2012, Merced County experienced a six percent decrease in total farmland acreage.

Environmental Consequences

Would the project:

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 (FMMP) of the California Resources Agency, to non-agricultural use?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion a): According to the 2014 Merced County Important Farmland Map, the most recent map issued by the California Department of Conservation (CDOC) for Merced County, the project areas are adjacent to urban and built-up land, prime farmland, farmland of statewide importance, and unique farmland. The maintenance of streams and channels would occur within streams, creeks and other water channels within various locations in Merced County and would not involve any conversion of farmland to non-agricultural use in any part of the project area. No farmland in Merced County would be acquired for this project. Therefore, the project would result in no impact on the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide importance.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion b): The project areas are zoned as agricultural, city limit, low-density residential, and residential-reserve as identified in the General Plan (Merced County, 2013). The city limit, low-density residential, and residential-reserve is located in the City of Merced. The maintenance of streams and channels would occur within streams, creeks, and other water channels within various locations in Merced County, as described in Section 8, Project Description. As such, the project would not result in conflict with the zoning because it would not convert land zoned as farmland to non-farmland use. Therefore, there would be no impact.

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))?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c): The project area is zoned for agriculture use, city limit, low-density residential, and residential-reserve, and does not include any forest land or timberland (Merced County, 2013). Therefore, the project would result in no impact from conflict with existing zoning or rezoning for forest land or timberland.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion d): The project area is zoned for agriculture use, city limit, low-density residential, and residential-reserve, and does not include any forest land or timberland (Merced County, 2013). Therefore, the project would result in no impact on the loss of forest land or timberland.

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion e): As stated in Discussion c) above, there is no forest land within or surrounding the project area. In addition, as stated in Discussion a) above, there will be no impact to farmland because there will be no change in zoning of farmland to non-farmland. Therefore, there would be no impact to forest lands.

3. Air Quality

Regulatory Setting

Federal and State Regulations

The National Ambient Air Quality Standards (NAAQS) were established by the Federal Clean Air Act of 1970 (FCAA), as amended in 1977 and 1990. The six criteria pollutants for which NAAQS have been established are carbon monoxide (CO), ozone (O3), particulate matter equal to or smaller than 10 microns (PM10) or 2.5 microns (PM2.5) in diameter, sulfur dioxide (SO2), nitrogen dioxide (NO2), and lead (Pb). In addition to these criteria pollutants, the California Clean Air Act of 1988 established California Ambient Air Quality Standards (CAAQS) for visibility reducing particles, sulfates, hydrogen sulfide (H2S), and vinyl chloride.

In 1959 California enacted legislation requiring the state Department of Public Health to establish air quality standards and necessary controls for motor vehicle emissions. The California Air Resources Board (CARB) was created by the legislature in 1967, and the CAAQS that had been set by the Department of Public Health were subsequently adopted by the CARB in 1969. Thus, the CAAQS predate the NAAQS set by U.S. EPA. California law continues to mandate CAAQS, although attainment of the NAAQS has precedence over attainment of the CAAQS due to federal penalties for failure to meet federal attainment deadlines. California law continues to mandate CAAQS, which are often more stringent than national standards (California Air Resources Board, 2017).

A State Implementation Plan (SIP) is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain national air quality standards. The SIP for the State of California is administered by the CARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's SIP incorporates individual federal attainment plans for regional air districts – these air districts prepare their federal attainment plans, which are sent to CARB to be approved and incorporated into the California SIP. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

Local Regulations

San Joaquin Valley Air Basin

The project is located in the San Joaquin Valley Air Basin (SJVAB), which is responsible for air quality monitoring in Merced County. SJVAB's Current Rules and Regulations, outlines the following rules and regulations that are applicable to the proposed project (San Joaquin Valley Air Pollution Control District, 2017).

- Rule 8021-Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities: The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities. This rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities. In addition to the requirements of this rule, a

person shall comply with all other applicable requirements of Regulation VIII. A person shall control the fugitive dust emissions to meet the following requirements:

- Pre-Activity: Pre-water site sufficient to limit VDE to 20% opacity, and A2 Phase work to reduce the amount of disturbed surface area at any one time.
- During Active Operations:
    - Apply water or chemical/organic stabilizers/suppressants sufficient to limit VDE to 20% opacity; or
    - Construct and maintain wind barriers sufficient to limit VDE to 20% capacity. If utilizing wind barriers, control measure B1 above shall also be implemented.
    - Apply water or chemical/organic stabilizers/suppressants to unpaved haul/access roads and unpaved vehicle/equipment traffic areas sufficient to limit VDE to 20% opacity and meet the conditions of a stabilized unpaved road surface.
- Temporary Stabilization During Periods of Inactivity:
    - Restrict vehicular access to the area; and
    - Apply water or chemical/organic stabilizers/suppressants, sufficient to comply with the conditions of a stabilized surface. If an area having 0.5 acres or more of disturbed surface area remains unused for seven or more days, the area must comply with the conditions for a stabilized surface area as defined in section 3.58 of Rule 8011.

Maintenance 2030 Merced County General Plan

The Air Quality Element of the General Plan identifies the following policies that are applicable to the project (Merced County, 2013):

- Policy AQ-2.2: Development Review Process. Use the development review process to achieve measurable reductions in criteria pollutant, toxic air contaminants, and greenhouse gas emissions.
- Policy AQ-2.4: Mitigation. Require that local and regional air quality impacts identified during CEQA review for projects reviewed and approved by the County are consistently and fairly mitigated.

Affected Environment

Local Climate and Meteorological Conditions

The SJVAB, which occupies the southern half of California's Central Valley, is located within both the Sacramento and San Joaquin Valley and foothills and the Sacramento and San Joaquin Valley watersheds. Approximately 250 miles long and 35 miles wide on average, the SJVAB is a well-defined climatic region with distinct topographic features on three sides. The Coast Ranges, which have an average elevation of 3,000 feet, are located on the western border of the SJVAB. The San Emigdio Mountains, which are part of the Coast Ranges, and the Transverse Ranges, which are part of the Sierra Nevada, are both located on the south side of the SJVAB. The Sierra Nevada forms the eastern border of the SJVAB. No topographic feature delineates the northern edge of the basin. The SJVAB can be considered a "bowl" open only to the north. The SJVAB is basically

flat with a downward gradient in terrain to the northwest. Air flows into the SJVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Delta from the San Francisco Bay Area. The mountains surrounding the SJVAB create a barrier to airflow, which leads to entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. Temperature and precipitation in the SJVAB are similar to meteorological conditions in the Sacramento Valley, but with somewhat less precipitation.

Ambient Air Quality Attainment Status

The six criteria pollutants for which federal NAAQS standards have been established are CO, O3, particulate matter equal to or smaller than PM10 or PM2.5, SO2, NO2, Pb. In addition to these criteria pollutants, CAAQS set standards for visibility reducing particles, sulfates, H2S, and vinyl chloride.

Based on monitored air pollutant concentrations, the CARB designate an area's status in attaining the CAAQS for criteria pollutants. The SJVAB is currently designated as a nonattainment area for O3 8-hour, O3 1-hour, and PM2.5, and PM10.

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the local air quality agency with jurisdiction in the eight counties of California's Central Valley, including Merced County where the project area is located. To work towards attainment of O3, PM2.5, and PM10 standards, the SJVAPCD has adopted the following air quality plans:

- 2004 Extreme Ozone Attainment Demonstration Plan;
- 2007 Ozone Plan;
- 2009 Reasonably Available Control Technology (RACT) State Implementation Plan (SIP);
- 2012 $PM_{2.5}$ Plan;
- 2008 $PM_{2.5}$ Plan; and
- 2007 PM_{10} Maintenance Plan.

Environmental Consequences

Would the project:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion a): The project would not generate new stationary or mobile sources of emissions because activities would involve the maintenance of streams and channels, as described in Section 8, Project Description. These activities would not involve the installation or expansion of new buildings or road surfaces. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion b): The project would not generate any new stationary, mobile, or permanent sources of emissions or various air pollutants because activities would involve the maintenance of streams and channels as described in Section 8, Project Description. These activities could generate minimal and temporary emissions from gasoline powered tools and worker commutes. As such, the project would not in a considerable net increase of any criteria pollutant. Therefore, impacts would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion c): Sensitive receptors are persons who are more susceptible to air pollution than the general population, such as children, athletes, the elderly, and the chronically ill. Typical land uses where substantial numbers of sensitive receptors are often found are schools, daycare centers, parks, recreation areas, medical facilities, nursing homes, and convalescent care facilities. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants.

Potential sensitive receptors near the project areas include urban and rural residential dwellings, parks, and schools. Operation of the project would not generate new stationary or mobile sources of emissions because the project involves the maintenance of streams across Merced County. These activities could generate minimal and temporary emissions from gasoline powered tools and worker commutes. As such, the project, in conjunction with avoidance measures, would not cause substantial impact to sensitive receptors. Therefore, impacts would be less than significant.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion d): There are multiple residences surrounding the project areas, primarily in the City of Merced, that are potential sensitive receptors for odors. The project would not result in any permanent sources of objectionable odors. There would be minimal operation of construction

equipment (diesel exhaust) and paving operations that could generate odors not typical for the project areas. However, the primary source of odors could be generated through the removal of vegetation, debris, and sediments in the project areas. These odors would be temporary, and maintenance would be isolated to the immediate vicinity of maintenance activities, and typically dissipate rapidly outside the immediate vicinity of the project areas. Therefore, the project would result in less than significant impacts on odors.

4. Biological Resources

Regulatory Setting

Federal and State Regulations

Clean Water Act

The USACE regulates the placement of dredged and fill material into waters of the United States (U.S.), including wetlands, under Section 404 of the Clean Water Act (CWA). No discharge of dredged or fill material into jurisdictional features is permitted unless authorized under an USACE Nationwide Permit or Individual Permit. For all work subject to an USACE Section 404 permit, project proponents must obtain a Water Quality Certification from the applicable RWQCB under CWA Section 401 stating that the project would comply with applicable water quality regulations.

Waters of the United States

The USACE Regulatory Program regulates activities within federal wetlands and waters of the U.S. pursuant to Section 404 of the CWA. Waters of the U.S. are divided into several categories as defined by the Code of Federal Regulations (CFR). Under the CFR (CFR 33 Section 328.3), waters of the U.S. include, but are not limited to:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce (including sightseeing or hunting), including all waters subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats; sand flats; wetlands; sloughs; prairie potholes; wet meadows; playa lakes; or natural ponds where the use, degradation, or destruction of which could affect interstate or foreign commerce. This includes any such waters which are or could be used by interstate or foreign travelers for recreational or other purposes, and from which fish or shellfish could be taken and sold in interstate or foreign commerce, or which are used or could be used for industrial purposes in interstate commerce.

In streams and rivers where adjacent wetlands are absent, the USACE jurisdiction extends to the ordinary high-water mark (OHWM). The OHWM is defined as "the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]). If the OHWM is not readily distinguishable, the USACE jurisdiction within streams extends to the "bankfull discharge" elevation, which is the level at which water begins to leave the channel and move into the floodplain (Rosgen, 1996). This level is reached at a discharge which generally has a recurrence interval of approximately 1.5 to two years on the annual flood series (Leopold, 1994).

Federal wetlands are transitional areas between well-drained upland habitats and permanently flooded (deepwater) aquatic habitats and are defined differently by different resource agencies. The USACE and the U.S. EPA define wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal

circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR Section 328.3[b]).

Waters of the State

The term "waters of the state," under jurisdiction of the RWQCB, is defined by California Water Code as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code Section 13050(e)).

Currently, the RWQCB relies upon the definition used in the CWA to define wetlands.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) was established in 1973 to provide a framework to conserve and protect endangered and threatened species and their habitat. Section 7 of the FESA requires federal agencies to ensure that actions they engage in, permit, or fund, do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of designated critical habitat for these species. Section 7 consultation provides for the "incidental take" of endangered and threatened wildlife species by federal entities if adverse effects to species cannot be avoided. Incidental take is defined by the FESA as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

When a federal nexus is absent, the project proponent must comply with FESA through Section 10 ensuring that actions they engage in, permit, or fund do not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of designated critical habitat for these species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (50 CFR Part 10 and Part 21) protects migratory birds, their occupied nests, and their eggs from disturbance and/or destruction. "Migratory birds" under the MBTA include all bird species listed in 50 CFR Part 10.13, as updated in December 2013 (United States Fish and Wildlife Service, 2013). In accordance with the Migratory Bird Treaty Reform Act of 2004 the United States Fish and Wildlife Service (USFWS) included all species native to the U.S. (or U.S. territories) that are known to be present as a result of natural biological or ecological processes. In addition, the USFWS provided clarification that the MBTA does not apply to any nonnative species whose presence in the U.S. are solely the result of intentional or unintentional human-assisted introduction (United States Fish and Wildlife Service, 2018). Nonnative bird species not protected by the MBTA include, but are not limited to, the house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and rock pigeon (*Columba livia*).

Magnuson-Stevens Fishery Conservation and Management Act of 1976

The Magnuson-Stevens Fishery Conservation and Management Act of 1976 was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous

species, Continental Shelf fishery resources, and fishery resources in special areas. In the Pacific Region, National Marine Fisheries Service (MNFS) provides regulatory oversight over all Essential Fish Habitat (EFH) for Pacific salmon.

Executive Order 13112

Executive Order 13112 directs all federal agencies to refrain from authorizing, funding, or carrying out actions or projects that may spread invasive species. This order further directs federal agencies to prevent the introduction of invasive species, control and monitor existing invasive species populations, restore native species to invaded ecosystems, research and develop prevention and control methods for invasive species, and promote public education on invasive species.

Porter-Cologne Act

The RWQCB also asserts authority over waters of the state under the Porter-Cologne Act, which establishes a regulatory program to protect water quality and to protect beneficial uses of state waters. The Porter-Cologne Act empowers the RWQCB to formulate and adopt a Water Quality Control Plan that designates beneficial uses and establishes such water quality objectives that in its judgment will ensure reasonable protection of beneficial uses. Each RWQCB establishes water quality objectives that will ensure the reasonable protection of beneficial uses and the prevention of water quality degradation. Dredge or fill activities with the potential to affect water quality in these waters must comply with Waste Discharge Requirements (WDR) issued by the RWQCB. Waters of the state are defined by the Porter-Cologne Act as any surface or subsurface water or groundwater, including saline waters, within the boundaries of the state.

California Fish and Game Code

Section 1602 of the California Fish and Game Code governs construction activities that substantially divert or obstruct natural stream flow or substantially change the bed, channel, or bank of any river, stream, or lake under the jurisdiction of CDFW. Under the California Fish and Game Code, the limits of CDFW's jurisdiction within streams and other drainages extends from the top of the stream bank to the top of the opposite bank, to the outer drip line in areas containing riparian vegetation, and/or within the 100-year floodplain of a stream or river system containing fish or wildlife resources. Streams are defined in the CCR (14 CCR Section 1.72) as "a body of water that follows at least periodically or intermittently through a bed or channel having banks and that support fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." Under Section 1602, a Streambed Alteration Agreement must be issued by the CDFW prior to the initiation of construction activities that may substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank, of any river, stream, or lake; or deposit debris, waste, or other materials that could pass into any river, stream, or lake under CDFW's jurisdiction.

The CDFW has jurisdictional authority over waters of the state, including wetlands. In practice, CDFW follows the USFWS definition of wetlands in Cowardin's Classification of Wetlands and Deepwater Habitats of the United States: "Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the

following three attributes: 1) at least periodically, the land supports hydrophytes; 2) the substrate is predominantly undrained hydric soil; and 3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year" (Cowardin, Carter, Golet, & LaRoe, 1979).

Section 2126 of the California Fish and Game Code states that it is unlawful for any person to take any mammal that are identified within Section 2118, including all species of bats.

Sections 3503, 3513, and 3800 of the California Fish and Game Code prohibit the take of birds protected under the MBTA and protects their occupied nests. In addition, Section 3503.5 of the California Fish and Game Code prohibits the take of any birds in the order Falconiformes or Strigiformes (birds-of-prey) and protects their occupied nests. Pursuant to Section 3801 and 3800, the only species authorized for take without prior authorization from the CDFW is the English sparrow and European starling.

State-listed species and those petitioned for listing by the CDFW are fully protected under the California Endangered Species Act (CESA). Under Section 2080.1 of the California Fish and Game Code, if a project would result in take of a species that is both federally and state listed, a consistency determination with the findings of the FESA determination is required. Under Section 2081, if a project would result in take of a species that is state-only listed as threatened or endangered, then an incidental take permit from the CDFW is required.

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code prohibit the take or possession of 37 fully protected bird, mammal, reptile, amphibian, and fish species. Each of the statutes state that no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to “take” the species, and states that no previously issued permit or licenses for take of the species “shall have any force or effect” for authorizing take or possession. The CDFW will not authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

Local Regulations

2030 Merced County General Plan

The Natural Resources Element of the 2030 Merced County General Plan includes the following goals and policies related to biological resources. The following excerpt from the 2030 Merced County General Plan identifies those that are applicable to the project (Merced County, 2013):

- Goal NR-1: Preserve and protect, through coordination with the public and private sectors, the biological resources of the County.
    - Policy NR-1.3: Forest Protection. Preserve forests, particularly oak woodlands, to protect them from degradation, encroachment, or loss.
    - Policy NR-1.4: Important Vegetative Resource Protection. Minimize the removal of vegetative resources which stabilize slopes, reduce surface water runoff, erosion, and sedimentation.
    - Policy NR-1.5: Wetland and Riparian Habitat Buffer. Identify wetlands and riparian habitat areas and designate a buffer zone around each area sufficient to protect them from degradation, encroachment, or loss.

- Policy NR-1.10: Aquatic and Waterfowl Habitat Protection. Cooperate with local, state, and federal water agencies in their efforts to protect significant aquatic and waterfowl habitats against excessive water withdrawals or other activities that would endanger or interrupt normal migratory patterns or aquatic habitats.
- Policy NR-1.11: On-Going Habitat Protection and Monitoring. Cooperate with local, state, and federal agencies to ensure that adequate on-going protection and monitoring occurs adjacent to rare and endangered species habitats or within identified significant wetlands.
- Policy NR-1.12: Wetland Avoidance. Avoid or minimize loss of existing wetland resources by careful placement and construction of any necessary new public utilities and facilities, including roads, railroads, high speed rail, sewage disposal ponds, gas lines, electrical lines, and water/wastewater systems.
- Policy NR-1.17: Agency Coordination. Consult with private, local, State, and Federal agencies to assist in the protection of biological resources and prevention of degradation, encroachment or loss of resources managed by these agencies.
- Policy NR-21: Special Status Species Surveys and Mitigation. Incorporate the survey standards and mitigation requirements of state and federal resource management agencies for use in the County's review processes for both private and public projects.

Affected Environment

Methodology

For the purposes of the biological analysis, the MSG stream maintenance projects are referred to as the "project." The "Study Area" includes the waterways, as described in Section 8, Project Description that flow through the County of Merced and eventually into the San Joaquin River. A "Project Activity Area" is defined as the top of bank to top of bank of any stream associated with MSG maintained streams. The "bank" includes the physical bank of the stream and all associated riparian vegetation.

Because of the size of the MSG Study Area, field surveys were not conducted for specific Project Activity Areas. A desktop analysis was conducted for the entire Study Area using county-wide data.

Habitat types that may be in the Study Area were identified using the CDFW's California Wildlife Habitat Relationships (CWHR) Habitat Classification Scheme. The CWHR is a broad scale information system provided by CDFW. The system classifies existing vegetation types and predicts fish and wildlife relationships under specific environmental conditions. The broad scale CWHR was chosen over more specific models because of the size of the Study Area.

In addition, the following sources were used to identify special-status plants, wildlife, and/or sensitive habitats that could be in the Study Area:

- CDFW's Biogeographic Information and Observation System (BIOS) (CDFW, 2018a);
- NMFS West Coast Region California Species List (National Marine Fisheries Service, 2016); search conducted on 7.5-minute series topographic quadrangles, covering the county (44 quads in total);

- CDFW's California Natural Diversity Database (CNDDB) (CDFW, 2018b); search conducted for the county (see **Appendix A**);
- California Native Plant Society (CNPS) (California Native Plant Society, 2018); Inventory of Rare and Endangered Plants; search conducted for the county;
- CDFW's CWHR (CDFW, 2018c); search conducted for the county;
- USFWS Information for Planning and Consultation Database (IPaC) (United States Fish and Wildlife Service, 2018) (see **Appendix A**); search conducted for the county; and,
- Google Earth (Google Earth, 2018); search conducted for the county.

Environmental Setting

Land Use and Hydrology

The primary land uses in the Study Area are agriculture and foothill pasture (Merced County, 2013). Within these areas is a network of rivers and tributaries that flow into the San Joaquin River Drainage Basin. Tributaries to the San Joaquin River within the county include the Fresno, Chowchilla, and Merced Rivers (CDFW, 2018a). The MSG maintains sections of specific streams within the Study Area, as described in Section 8, Project Description.

Vegetation and Habitat Types

According to CWHR, there are 29 CWHR habitat types expected to be within the Study Area. Based on preliminary research, eight of these habitat types have potential to be within the Project Activity Areas, including Annual Grassland, Barren, Fresh Emergent Wetland, Perennial Grassland, Riverine, Urban, Valley Foothill Riparian, and Valley Oak Woodland.

Annual Grassland

Annual Grassland is located throughout the county. Grass species primarily associated with Annual Grassland habitat include wild oat (*Avena Fatua*) and brome species (*Bromus* sp.). Annual Grassland may be found associated with a variety of streambank habitats, such as above or surrounding Valley Foothill Riparian, Alkali Desert Scrub, or Fresh Emergent Wetland, and Valley Oak Woodland, Blue Oak Woodland, and Blue Oak Foothill Pine. Within Project Activity Areas, Annual Grasslands may be along the stream banks and the tops of stream banks.

Barren

Barren is non-vegetated, and generally composed of rock, gravel, and/or soil with less than two percent total vegetation cover and less than 10 percent tree or shrub cover. Barren land may be adjacent to many different types of natural habitats. Permanent barren land is a result of extremely hot or cold climates, a near-vertical slope, impermeable substrate, constant disturbance caused by nature or humans, and/or soils that are either lacking organic matter or excessively saline, making it unfavorable to plants. Within Project Activity Areas, Barren land may be along the banks and the tops of stream banks.

Fresh Emergent Wetland

Fresh Emergent Wetland habitat is throughout the county at nearly all elevations, most predominate below 7,500 feet. Fresh Emergent Wetland habitat is characterized by plants that grow only in or on water. This habitat is found on nearly all exposures and slopes where a basin or depression is saturated or at least flooded periodically, such as edges of rivers or lakes. Within Project Activity Areas, Fresh Emergent Wetlands may be within wet areas or where dry land transitions to water.

Perennial Grassland

Perennial Grassland habitat is throughout the county interspersed on northern valley slopes containing streambank habitats such as Fresh Emergent Marsh and Valley Foothill Riparian. Grass species primarily associated with Perennial Grassland habitat include California oatgrass (*Danthonia californica),* hairgrass (*Agrostis* sp.), and sweet vernal grass (*Anthoxanthum odoratum*). Within Project Activity Areas, Perennial Grasslands may be along stream banks and the tops of stream banks.

Riverine

Riverine habitat is throughout the county. Riverine habitat consists of running water characteristic of rivers and streams. Depending on weather conditions, streams experience low flow and or become completely dry during certain times of the year. Within Project Activity Areas, Riverine habitat may include aquatic habitat within streams.

Urban

Urban land is typically developed with 40 percent or more impervious surface. Vegetation associated with Urban land includes grass lawns, ornamental trees, shrubs, and other ornamental plantings. Species composition in Urban land is relatively static and unmaintained areas are usually invaded by exotic and native species. The highest levels of urban development are predominately located in lower elevations of the county. Within Project Activity Areas, Urban land may be on the tops of stream banks where they are abutting businesses and residential properties.

Valley Foothill Riparian

Valley Foothill Riparian habitat is situated throughout the county. Valley Foothill Riparian is mature forest with a canopy cover of approximately 20 to 80 percent. Most tree species associated with Valley Foothill Riparian habitat include cottonwood (*Populus* sp.), California sycamore (*Plantanus occidentalis*), and valley oak (*Quercus lobata*). Valley Foothill Riparian habitat is associated with low velocity flows, floodplains, and gentle topography. The transition to adjacent non-riparian vegetation is usually abrupt, especially near agricultural land (CDFW, 2018c). Within Project Activity Areas, Valley Foothill Riparian habitat may be in parts of streams with low velocity flows, along stream banks, and at the tops of stream banks.

Valley Oak Woodland

Valley Oak Woodland habitat is in the eastern and northwestern portions of the county. Denser stands typically grow in valley soils along natural drainages. Trees species commonly found in Valley Oak Woodland habitat include valley oak, California walnut (*Juglans* sp.), and California sycamore. Valley Oak Woodland is usually in association with Annual Grassland. This habitat is found in many geographical settings, but typically in valley bottoms. Within Project Activity Areas, Valley Oak Woodlands may be at the tops of stream banks with Valley-Foothill Riparian vegetation.

Special-Status Plants

According to the USFWS IPaC, NMFS, CNDDB, and CNPS searches, 75 special-status plant species have the potential to be in the Study Area based on previous recorded observations. Based on research and habitat assessment, 49 special-status plant species have potential to be within Project Activity Areas. Discussions on general habitat requirements and rationale for determinations can be found in **Appendix B.** Special-status plants with potential to be in Project Activity Areas are listed in **Table 2**.

Table 2. Special-Status Plants with Potential to be in the Study Area

Common Name	Scientific Name	Federal Ranking	State Ranking
Arburua Ranch jewelflower	*Streptanthus insignis* ssp. *lyonia*	--	CNPS 1B.2
Alkali milk-vetch	*Astragalus tener* var. *tener*	--	CNPS 1B.2
Beaked clarkia	*Clarkia rostrata*	--	CNPS 1B.3
Boggs Lake hedge-hyssop	*Gratiola heterosepala*	--	SE, CNPS 1B.2
Brittlescale	*Atriplex depressa*	--	CNPS 1B.2
California adder's-tongue	*Ophioglossum californicum*	--	CNPS 4.2
California alkali grass	*Puccinellia simplex*	--	CNPS 1B.2
Crownscale	*Atriplex coronata* var. *coronata*	--	CNPS 4.2
Delta button-celery	*Eryngium racemosum*	--	SE, CNPS 1B.1
Dwarf downingia	*Downingia pusilla*	--	CNPS 2B.2
Eel-grass pondweed	*Potamogeton zosteriformis*	--	CNPS 2B.2
Ewan's larkspur	*Delphinium hansenii* ssp. *ewanianum*	--	CNPS 4.2
Forked fiddleneck	*Amsinckia furcata*	--	CNPS 4.2
Forked hare-leaf	*Lagophylla dichotoma*	--	CNPS 1B.1
Hairy Orcutt grass	*Orcuttia Pilosa*	FE, CH	SE, CNPS 1B.1
Hartweg's golden sunburst	*Pseudobahia bahiifolia*	FE	SE, CNPS 1B.1
Heartscale	*Atriplex cordulata var. cordulata*	--	CNPS 1B.2
Henderson's bent grass	*Agrostis hendersonii*	--	CNPS 3.2

Hispid salty bird's-beak	*Chloropyron molle* ssp. *hispidum*	--	CNPS 1B.1
Hogwallow starfish	*Hesperevax caulescens*	--	CNPS 4.2
Hoover's calycadenia	*Calycadenia hooveri*	--	CNPS 1B.3
Howell's onion	*Allium howellii* var. *howellii*	--	CNPS 4.3
Idria buckwheat	*Eriogonum vestitum*	--	CNPS 4.3
Keck's checkerbloom	*Sidalcea keckii*	FE	CNPS 1B.1
Large-flowered leptosiphon	*Leptosiphon grandifloras*	--	CNPS 4.2
Lemmon's jewelflower	*Caulanthus lemmonii*	--	CNPS 1B.2
Lesser saltscale	*Atriplex minuscula*		CNPS 1B.1
Little mousetail	*Myosurus minimus* ssp. *apus*	--	CNPS 3.1
Lost hills crownscale	*Atriplex coronata* var. *vallicola*	--	CNPS 1B.2
Merced monardella	*Monardella leucocephala*	--	CNPS 1A
Merced phacelia	*Phacelia ciliata* var. *opaca*	--	CNPS 3.2
Munz's tidy-tips	*Layia munzii*	--	CNPS 1B.2
Northern California black walnut	*Juglans hindsii*	--	CNPS 1B.1
Panoche pepper-grass	*Lepidium jaredii* ssp. *album*	--	CNPS 1B.2
Parry's rough tarplant	*Centromadia parryi* ssp. *rudis*	--	CNPS 4.2
Peruvian dodder	*Cuscuta obtusiflora* var. *glandulosa*	--	CNPS 2B.2
Prostrate vernal pool navarretia	*Navarretia prostrata*	--	CNPS 1B.1
Rattan's cryptantha	*Cryptantha rattanii*	--	CNPS 4.3
Recurved larkspur	*Delphinium recurvatum*	--	CNPS 1B.2
San Joaquin spearscale	*Extriplex joaquinana*	--	CNPS 1B.2
Sanford's arrowhead	*Sagittaria sanfordii*	--	CNPS 1B.2
Serpentine leptosiphon	*Leptosiphon ambiguous*	--	CNPS 4.2
Slender nemacladus	*Nemacladus gracilis*	--	CNPS 4.3
Slender-leaved pondweed	*Stuckenia filiformis* ssp. *alpina*	--	CNPS 2B.2
Small-flowered morning-glory	*Convolvulus simulans*	--	CNPS 4.2
Spiny-sepaled button-celery	*Eryngium spinosepalum*	--	CNPS 1B.2
Stinkbells	*Fritillaria agrestis*	--	CNPS 4.2
Sylvan microseris	*Microseris sylvatica*	--	CNPS 4.2
Wright's trichocoronis	*Trichocoronis wrightii* var. *wrightii*	--	CNPS 2B.1

Federal Endangered (FE); State Endangered (SE); Critical Habitat (CH); California Native Plant Society (CNPS), etc. 1A = Plants presumed extirpated in California and either rare, or extinct elsewhere; 1B= Plant species that are rare, threatened, or endangered in California and elsewhere; 2B= Plant species that are rare, threatened, or endangered in California, but are

more common elsewhere; 3= Plants about which we need more information; 4 = Plants of limited distribution; 0.1 = seriously threatened in California; 0.2 = moderately threatened in California; and 0.3 = Not very threatened in California.

Critical Habitat

According to the USFWS, special-status plant critical habitat has been designated for the federally listed Colusa grass (*Neostapfia colusana*), fleshy owl's-clover (*Castilleja campestris* ssp. *succulenta*), Greene's tuctoria (*Tuctoria greenei*), hairy Orcutt grass (*Orcuttia pilosa*), Hoover's spurge (*Chamaesyce hooveri*), and San Joaquin Orcutt grass (*Orcuttia inaequalis*) within the Study Area. However, Project Activity Areas are outside of the range of special-status plant critical habitat.

Special-Status Wildlife

According to the USFWS IPaC, NMFS, CNDDB, and CNPS searches, 85 special-status animal species have the potential to be in the Study Area based on previous recorded observations. Based on research and habitat assessment, 50 special-status wildlife species have the potential to be within Project Activity Areas. Discussions on the special-status wildlife status, general habitat requirements, and rationale for determinations are in **Appendix B**. Special-status wildlife with potential to be in Project Activity Areas are listed in **Table 3**.

Table 3. Special-Status Wildlife with Potential to be in the Study Area

Common Name	Scientific Name	Federal Ranking	State Ranking
Amphibians			
California red-legged frog	*Rana draytonii*	FT, CH	ST
California tiger salamander	*Ambystoma californiense*	FT, CH	ST
Coast range newt	*Taricha torosa*	--	SSC
Foothill yellow-legged frog	*Rana boylii*	--	SCT
Western spadefoot	*Spea hammondii*	--	SSC
Birds			
American bittern	*Botarus lentiginosus*	--	S3S4
Bald eagle	*Haliaeetus leucocephalus*		SE
Black tern	*Chlidonias niger*	--	SSC
Black-crowned night heron	*Nycticorax nycticorax*	--	S4
Burrowing owl	*Athene cunicularia*	--	SSC
California horned lark	*Eremophila alpestris actia*	--	WL
Cooper's hawk	*Accipiter cooperiii*	--	WL
Double-crested cormorant	*Phalacrocorax auritus*	--	WL
Golden eagle	*Aquila chrysaetos*	--	FP
Grasshopper sparrow	*Ammodramus savannarum*	--	SSC

Great blue heron	*Ardea herodias*	--	S4
Great egret	*Ardea alba*	--	S4
Greater sandhill crane	*Grus canadensis tabida*	--	ST
Least bittern	*Icteria virens*	--	SSC
Loggerhead shrike	*Lanius ludovicianus*	--	SSC
Merlin	*Falco columbarius*	--	WL
Northern harrier	*Circus cyaneus*	--	SSC
Osprey	*Pandion haliaetus*	--	WL
Snowy egret	*Egretta thula*	--	S4
Swainson's hawk	*Buteo swainsoni*	--	ST
Tricolored blackbird	*Agelaius tricolor*	--	SE
White-faced ibis	*Plegadis chihi*	--	WL
White-tailed kite	*Elanus leucurus*	--	FP
Yellow rail	*Coturnicops noveboracensis*	--	SSC
Yellow warbler	*Setophaga petechia*	--	SSC
Yellow-breasted chat	*Setophaga petechia*	--	SSC
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	--	SSC
Fish			
Hardhead	*Mylopharodon conocephalus*	--	SSC
Kern brook lamprey	*Entosphenus hubbsi*	--	SSC
Pacific lamprey	*Entosphenus tridentatus*	--	SSC
Invertebrates			
Crotch bumble bee	*Bombus crotchii*	--	S1S2
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT	--
Mammals			
Fresno kangaroo rat	*Dipodomys nitratoides exilis*	FE	SE
Hoary bat	*Lasiurus cinereus*	--	S4
Pallid bat	*Antrozous pallidus*	--	SSC
San Joaquin kit fox	*Vulpes macrotis*	FE	SE
Townsend's big-eared bat	*Corynorhinus townsendii*	--	SSC
Western mastiff bat	*Eumops perotis californicus*	--	SSC
Western red bat	*Lasiurus blossevillii*	--	SSC

Yuma myotis	*Myotis yumanensis*	--	S4
Mollusks			
Western pearlshell	*Margaritifera falcata*	--	S1S2
Western rigid mussel	*Gonidea angulate*	--	S1S2
Reptiles			
Giant garter snake	*Thamnophis gigas*	FT	ST
Northern California legless lizard	*Anniella pulchra*	--	SSC
Western pond turtle	*Emys marmorata*	--	SCC

Federal Threatened (FT); State Threatened (ST); Federal Candidate Species (FC); and State Candidate Threatened (SCT); Critical Habitat (CH); Fully Protected (FP); Watch List (WL); State Species of Special Concern (SSC); S1 = Critically Imperiled - extreme rarity (often 5 or fewer observations) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from California; S2 = Imperiled- rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or California; S3 = Vulnerable- restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation; and S4 = Apparently Secure - uncommon but not rare; some cause for long-term concern due to declines or other factors.

Critical Habitat

According to the USFWS (2018) and NMFS (2018), special-status wildlife critical habitat has been designated within the Study Area for the federally listed California red-legged frog, California tiger salamander, conservancy fairy shrimp (*Branchinecta conservatio*), longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and steelhead – Central Valley Distinct Population Segment (*Oncorhynchus mykiss irideus* pop. 11). Project Activity Areas are outside of the range of California red-legged frog, conservancy fairy shrimp, longhorn fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, and steelhead critical habitat. However, Project Activity Areas have the potential to be within critical habitat for the federally listed California tiger salamander. No other critical habitat for special-status wildlife is expected to be in Project Activity Areas.

Essential Fish Habitat

Based on data provided by the CDFW, the East Bypass Rock Weir blocks anadromous salmonid passage, including Chinook salmon, at Bear Creek downstream of Project Activity Areas. In addition, because the upstream portion of Black Rascal Creek is a tributary to Bear Creek and upstream of the weir, Chinook salmon are unable to enter Project Activity Areas along upper reaches of Black Rascal Creek. The East Bypass Rock Weir is approximately one mile upstream from the confluence between the San Joaquin River and Bear Creek (CDFW, 2018a). Therefore, Pacific Salmon EFH is not in Project Activity Areas.

Jurisdictional Wetlands and Waters

The Study Area contains a network of rivers and tributaries that flow into the San Joaquin River Drainage Basin. County tributaries to the San Joaquin River within the county include the Fresno, Chowchilla, and Merced Rivers (CDFW, 2018a). Project Activity Areas are within restricted sections of a set number of tributaries within the Study Area. Hydrological reviews of the Study Area indicate that Project Activity Areas are connected to the Merced River, San Joaquin River, or

other jurisdictional features. Therefore, Project Activity Areas would likely be within or adjacent to federal and state jurisdictional wetlands and waters.

Sensitive Natural Communities

According to the CNDDB search, eight special-status natural communities have the potential to be within the Study Area, three of which have potential to be within Project Activity Areas. These include the Great Valley Cottonwood Riparian Forest, Sycamore Alluvial Woodland, and Valley Sacaton Grassland. These special-status natural communities are considered sensitive by the CDFW because they are rare and under threat, predominantly from development. The sensitive natural communities, along with the CWHR habitats Fresh Emergent Wetland, Riverine, and Valley Foothill Riparian, tend to be associated with jurisdictional waterways; therefore, would likely be under CDFW jurisdiction. Further discussions on the special-status natural communities and rationale for determinations can be found in **Appendix B**. Sensitive natural communities with potential to be in Project Activity Areas are listed below:

Great Valley Cottonwood Riparian

Great Valley Cottonwood Riparian Forest exists on fine-grained alluvial soils near perennial or nearly-perennial streams, providing subsurface irrigation. Dominant species include cottonwood and willow (*Salix* sp.). Great Valley Cottonwood Riparian is ranked S2.1 by the CDFW. There is one CNDDB record of Great Valley Cottonwood Riparian in the northwestern portion of the county within the riparian corridor of Quinto Creek. Great Valley Cottonwood Riparian is similar in environmental habitat requirements, such alluvial soils and a high-water table, and species composition as the CWHR Valley Foothill Riparian. Within Project Activity Areas, Great Valley Cottonwood Riparian habitat may be in areas of streams with low velocity flows, along stream banks, and at the tops of stream banks.

Sycamore Alluvial Woodland

Sycamore Alluvial Woodland habitat exists at the base of flat valleys having deep alluvial gravel, where water from the hills hits the flat valley floor having an intermittent stream and large seasonal fluctuations in the water table. Sycamore Alluvial Woodland is ranked S1.1 by the CDFW. There is one CNDDB record of Sycamore Alluvial Woodland in the eastern section of the county along the San Joaquin River near the San Luis National Wildlife Refuge. Within Project Study Areas, Sycamore Alluvial Woodlands may be along stream banks and at the tops of stream banks.

Valley Sacaton Grassland

Valley Sacaton Grasslands are vast networks of freshwater marshes (permanent and seasonal), alkali grasslands, and riparian thickets. Characteristic species of this habitat include salt grass species (*Distichlis* sp.). Valley Sacaton Grassland is ranked S1.1 by the CDFW. There are three CNDDB records of Valley Sacaton Grasslands in the western section of the county. One record is within the northeast corner of the Los Banos Wildlife Area, east of Little Buttonwillow Lake, and south of San Luis Island; the second record is located on the west side of Lander Avenue South of the San Joaquin River; and the third recorded location is southeast of Gustine on the north side of Gun Club Road. Within Project Study Areas, Valley Sacaton Grasslands may be near the edges of streams, along stream banks, and at the tops of stream banks.

Wildlife Corridors and Wildlife Nursery Sites

Essential wildlife connectivity areas or natural landscape blocks are used as migration and/or travel routes for foraging and moving terrestrial and aquatic wildlife species. Habitats that are segmented are problematic because they separate individuals within populations. Habitat fragmentation is usually caused by human activities and structures, such as roads, mining, and other development. The county contains large blocks of intact habitat or natural landscape that function as corridors for wildlife (CDFW, 2018d). There are a number of intact essential areas that intersect with Project Activity Areas, including a section of Los Banos Creek near the Los Banos Reservoir, a section of Farhens Creek above the Merced Golf Course, sections of Edendale Creek near its confluence with Canal Creek and headwaters, sections of Canal Creek south of the City of Amsterdam, sections of Bear Creek north of the City of Planada, the majority of Burns Creek, and Mariposa and Owens Creeks east of South Cunningham Road (California Department of Fish and Wildlife, 2018d).

Native resident or migratory fish or wildlife species may be moving through a wildlife corridor within Project Activity Areas. In addition, streams within Project Activity Areas may serve as a nursery site for special-status amphibians, birds, fish, and bats. Many special-status amphibians return yearly to the same aquatic location to deposit eggs, birds travel to the same rookery sites during the breeding season, fish navigate to the same stream spawning grounds, and bats return to nursery roosts in bridges and culverts or within vegetation near a water source.

Environmental Consequences

In determining impacts on special-status species, each species was analyzed to determine if they could be associated with Project Activity Areas. The majority of work would be limited to maintenance as described in Section 8, Project Description.

Would the project:

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

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion a):

Special-Status Plants

Special-status plants could be removed or trampled by equipment or project staff during project activities if they were to be within Project Activity Areas. In addition, they could be indirectly impacted by dust. However, with implementation of avoidance, minimization, and mitigation measures B-1 and B-2; impacts would be less than significant.

If a federally or state threatened or endangered plant, including the federally and state endangered Hartweg's golden sunburst, federally endangered Keck's checkerbloom, state

endangered Boggs Lake hedge-hyssop, and state endangered Delta button celery, is found within Project Activity Areas, the encounter would be treated on a case-by-case basis in coordination with regulatory agencies. If project activities could affect a federally threatened or endangered plant, consultation with the USFWS would be conducted. If project activities could result in the "take" (mortality) of a state threatened or endangered plant, consultation with the CDFW would be conducted.

Special-Status Wildlife

Amphibians

Special-status amphibians could be trampled, crushed, or trapped by maintenance equipment during project activities if they were to be in Project Activity Areas. In addition, they could be indirectly impacted by maintenance noise and vibration. However, with implementation of avoidance, minimization, and mitigation measures B-3 through B-11, impacts would be less than significant.

If a federally or state threatened or endangered amphibian, including the federally and state threatened California tiger salamander, federally threatened California red-legged frog, or state candidate threatened foothill yellow-legged frog, is found within Project Activity Areas, the encounter would be treated on a case-by-case basis in coordination with CDFW and/or USFWS. If project activities could affect a federally threatened or endangered amphibian, consultations with the USFWS would be conducted. If project activities could result in the "take" (mortality) of a state threatened or endangered amphibian, consultation with the CDFW would be conducted.

Critical Habitat

California tiger salamander critical habitat could be directly impacted by project materials, dust, and debris entering the streambed and bank habitats. In addition, vegetation removal and bank disturbance could alter critical habitat features. However, with the implementation of avoidance, minimization, and mitigation measures B-12 and B-13, impacts would be less than significant. If there is critical habitat for the California tiger salamander within Project Activity Areas, consultation with the USFWS would be conducted.

Birds

Vegetation and tree removal could result in direct impacts on migratory birds if they were to be nesting in Project Activity Areas. In addition, filling eroded banks and holes could result in impacts on ground and/or burrow nesting birds, and project noise and vibration could result in indirect impacts. However, with implementation of avoidance, minimization, and mitigation measures B-3 through B-9 and B-14 through B-17, impacts would be less than significant.

If a state threatened or endangered bird, including the state endangered bald eagle, state threatened greater sandhill crane, state threatened Swainson's hawk, or state endangered tricolored blackbird, is found within Project Activity Areas, the encounter would be treated on a case-by-case basis in coordination with CDFW. If project activities could result in the "take" (mortality) of a state threatened or endangered bird, consultation with the CDFW would be conducted. There are no federal threatened or endangered birds with potential to be within Project Activity Areas.

Fish

Special-status fish could be trapped by equipment and water diversions during project activities if they were to be in Project Activity Areas. In addition, dust, debris, and vegetation removal could result in indirect impacts. However, with implementation of avoidance, minimization, and mitigation measures B-3 through B-9, B-18, impacts would be less than significant. There are no federal or state threatened or endangered fish with potential to be within Project Activity Areas.

Invertebrates

Special-status invertebrates could be trampled by equipment and project staff if they were to be within Project Activity Areas. The federally threatened valley elderberry longhorn beetle could be directly impacted by project activities, if its host plant, the blue elderberry (*Sambucus nigra* ssp. *cerulea*), were to be trimmed and/or removed, and dust could also impact elderberries. However, with implementation of avoidance, minimization, and mitigation measures B-3 through B-9, B-19, and B-20, impacts would be less than significant.

If the federally threatened elderberry longhorn beetle is found within Project Activity Areas, the encounter would be treated on a case-by-case basis in coordination with USFWS. If project activities could impact the federally threatened valley elderberry longhorn beetle, consultation with the USFWS would be conducted. There are no state threatened or endangered invertebrates with potential to be within Project Activity Areas.

Mammals

Special-status mammals could be trapped by equipment during project activities if they were to be within Project Activity Areas. Tree trimming and removal could result in direct impacts on bats if they were to be roosting within Project Activity Areas, vegetation removal could disrupt migratory corridors, and noise and vibration could result in disturbance to special-status mammals. However, with implementation of avoidance, minimization, and mitigation measures B-3 through B-9 and B-21 through B-25, impacts would be less than significant.

If a federally or state endangered mammal, including the federally and state endangered Fresno kangaroo rat and the federally and state endangered San Joaquin kit fox, is found within Project Activity Areas, the encounter would be treated on a case-by-case basis in coordination with CDFW and USFWS. If project activities could affect a federally endangered mammal, consultations with the USFWS would be conducted. If project activities could result in the "take" (mortality) of a state endangered mammal, consultation with the CDFW would be conducted.

Mollusks

Special-status mollusks could be trampled, crushed, or trapped by equipment and project staff during project activities if they were to be in Project Activity Areas. In addition, dust and debris could result in indirect impacts. However, with implementation of avoidance and minimization measures B-3, B-4, B-9, and B-26, impacts would be less than significant. There are no federal or state threatened or endangered mollusks with potential to be within Project Activity Areas.

Reptiles

Special-status reptiles could be trampled, crushed, or trapped by equipment and project staff during project activities if they were to be within Project Activity Areas. In addition, noise and vibration could result in indirect impacts. However, with implementation of avoidance,

minimization, and mitigation measures B-3 through B-9, B-27, and B-28, impacts would be less than significant.

If a federally or state threatened or special-status reptile, including the federally and state threatened giant garter snake, is found within Project Activity Areas, the encounter would be treated on a case-by-case basis in coordination with CDFW and USFWS. If project activities could result in an effect on the federally threatened giant garter snake, as defined by FESA, consultation with the USFWS would be conducted. If project activities could result in the "take" (mortality) of the state threatened giant garter snake, consultation with the CDFW would be conducted.

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?

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion b): Project activities could require the temporary and or permanent removal of vegetation in a sensitive natural community; however, vegetation removal would be limited to the extent feasible. With implementation of avoidance and minimization measures B-26 and B-29 through B-31, impacts would be less than significant.

c) Have a substantial adverse effect on state or 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?

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion c): Vegetation removal, equipment access, and installation and/or repair of erosion control materials could result in direct impacts on state or federally protected wetlands. Other direct impacts could include the placement of project materials, dust, or debris into wetlands. However, with implementation of avoidance, minimization, and mitigation measures B-26, B-29, and B-32 through B-34, impacts would be less than significant.

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?

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion d): Vegetation removal, equipment access, and alterations to stream flow could result in direct impacts on wildlife movement within migration corridors and/or nursery sites. Access to migration corridors and/or nursery sites would be restored after completion of project activities,

including normal flow patterns; therefore, project activities would not result in permanent impacts on native resident or migratory wildlife. With implementation of avoidance and minimization measures B-29 through B-31, impacts would be less than significant.

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

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion e): Project activities could result in conflicts with local policies or ordinances protecting biological resources from impacts on vegetation, wildlife, and jurisdictional wetlands and waters. However, with implementation of avoidance, minimization, and mitigation measures B-3 through B-9, B-18, B-26, B-29, B-30, and B-32 through B-34, project activities would be in compliance with the General Plan Policies NR-1.3, NR- 1.4, NR-1.5, NR-1.10, NR-1.11, NR-1.12, NR-1.17, and NR-21.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion f): There are no regional conservation plans such as a Habitat Conservation Plan or Natural Community Conservation Plan which apply to project activities; therefore, there would be no impact.

Avoidance, Minimization, and Mitigation Measures

The following avoidance, minimization, and/or mitigation measures would be implemented, as applicable. The County or other project implementing agency would obtain necessary federal and state approvals and implement required measures consistent with those identified below.

Special-Status Plants

To avoid and/or minimize impacts on special-status plant species, the following measure would be implemented:

B-1 If a special-status plant species is found within Project Activity Areas during pre-activity surveys, high visibility Environmental Sensitive Area (ESA) protective fencing would be installed around the special-status plants to prevent project staff or equipment from entering this area, to the extent feasible. The ESA buffer would be species specific and would be installed under direction of a qualified biologist. Special-status plant locations would be mapped and avoided during subsequent project activities, wherever feasible.

To mitigate impacts on special-status plant species, the following measure will be implemented:

B-2 If project activities directly impact special-status plants, a qualified biologist will prepare a species-specific mitigation plan. The plan may include one or more of the following:

plant relocation, seed collection and dispersal, on or off-site restoration, purchase of in-lieu fees, or payment into an agency-approved mitigation bank.

Special-Status Wildlife

To avoid and/or minimize impacts on special-status wildlife, the following general measures would be implemented:

B-3 A biological survey of the Project Activity Areas would be conducted prior project activities. In areas that support special status-species, a qualified biologist would conduct appropriate surveys within the Project Activity Area no more than seven days prior to the start of project activities.

B-4 Environmental awareness training would be conducted prior to any project activity to educate workers about special-status wildlife species and their habitat within Project Activity Areas.

B-5 If state or federally threatened or endangered species are known to be within a Project Activity Area, a qualified biologist would prepare a site and species-specific avoidance and minimization plan. The plan would be developed, and coordinated with the USFWS and the CDFW if potential for any effects pursuant to FESA or potential for take pursuant CESA on state or federally threatened or endangered species are identified. Site and species-specific avoidance and minimization efforts would include one or more of the following: pre-construction surveys, on-site biological monitoring, species-specific work windows, installation of ESA protection fencing, species relocation, on-site biological monitoring, modification of work practices, and/or other avoidance and minimization strategies recommended by a qualified biologist.

B-6 During project activities, if a special-status species is observed in any Project Activity Area, work would be stopped in the immediate vicinity to allow the species to leave the area unharmed. Work would not resume until a qualified biologist determines there is no risk to the species.

B-7 A daytime speed limit of 20 miles per hour would be maintained during project activities.

B-8 Project activities would be completed during daylight hours, except in emergencies.

To mitigate impacts on special-status wildlife species, the following measure will be implemented:

B-9 If project activities will directly impact special-status wildlife, a qualified biologist will prepare a species-specific mitigation plan. The plan may include one or more of the following: purchase of in-lieu fees, on or off-site restoration, or payment into an agency-approved mitigation bank.

Amphibians

To avoid and/or minimize impacts on special-status amphibians, Measures B-3 through B-8 and the following measures would be implemented:

B-10 Prior to project activities, Project Activity Areas would be assessed by a qualified biologist for potential California tiger salamander, California red-legged frog, and foothill yellow-legged frog habitat. If suitable habitat is present, project activities would be conducted in

a manner to avoid suitable breeding and upland habitat for California tiger salamander, California red-legged frog, and foothill yellow-legged frog, to the extent feasible.

B-11 If based on pre-construction surveys it is determined there is potential for a federally and/or state threatened or endangered amphibian species to be within any Project Activity Area, wildlife exclusion fencing would be installed around the area of disturbance, including banks, under the direction of a qualified biologist. Wildlife exclusion fencing would consist of construction grade polypropylene or similar fabric. The exclusion fencing would be a minimum of three feet above ground and be buried a minimum of four inches below ground with the base folded, so wildlife cannot burrow beneath or create entry points. The exclusion fencing would remain in place throughout the duration of project activities and would be regularly inspected and maintained in good working order by the project staff, under guidance of a qualified biologist. The fencing would be completely removed following completion of project activities.

B-12 Designated critical habitat adjacent to or within Project Activity Areas would be identified prior to project initiation. Project activities would be designed to avoid direct and indirect modifications to critical habitat areas, to the extent feasible. When feasible, buffers would be established under the direction of a qualified biologist and maintained by project staff for the duration of the project activities.

To mitigate impacts on special-status amphibians, Measure B-9 and the following measure will be implemented:

B-13 Potential impacts on critical habitat that cannot be avoided by establishing work buffers or modified construction methods will be mitigated by purchasing credits at an agency-approved mitigation bank at a minimum 1:1 ratio.

Birds

To avoid and/or minimize impacts on special-status birds, Measures B-3 through B-8 and the following measures would be implemented:

B-14 If project activities are conducted during the nesting season (typically February 1 to September 30), a qualified biologist would conduct pre-activity surveys to identify the locations of any nests. If nesting birds are present, a minimum 150-foot buffer would be established around the nest, under the direction of a qualified biologist. A reduced or expanded buffer may be implemented under the discretion of a qualified biologist. No project activities would be conducted within the buffer until nesting is completed and no evidence of a second clutch is present. No pre-activity surveys would be required if project activities are conducted outside of the nesting season.

B-15 If project activities require the removal of trees with suitable Swainson's hawk nesting habitat, as determined by a qualified biologist, pre-activity surveys for Swainson's hawk would be conducted within 0.5 mile of Project Activity Areas by a qualified biologist. If any active Swainson's hawk nests are present, a qualified biologist, in coordination with CDFW, would determine an appropriate buffer area. No work would be authorized within the buffer area until a qualified biologist has determined that the nest is no longer active. No pre-activity Swainson's hawk nesting surveys would be required if project activities are conducted outside of the nesting season.

B-16 If project activities are conducted during the nesting season (typically February 1 through September 30), all existing swallow nests within 150 feet of planned project activities would be checked for roosting bats and be removed prior to February 1 of each year. Construction of new nests would be discouraged using methods approved by a qualified biologist. A reduced buffer may be allowed under the discretion of a qualified biologist. Nest removal and deterrent measures would be repeated at least twice weekly until project activities are complete.

B-17 If project activities are conducted during the burrowing owl breeding season (typically February 1 through August 31), a qualified biologist would perform a focused survey within suitable habitat for burrows and burrowing owls within Project Activity Areas no more than 30 days prior to the start of project activities. The surveys would follow the protocols provided in Appendix D of the Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency, Department of Fish and Game, March 7, 2012, or as updated. Destruction or alteration of a burrowing owl burrow would not be authorized until a qualified biologist, in coordination with CDFW, has determined that all young have fledged, and the burrow is unoccupied.

To mitigate impacts on special-status birds, Measure B-9 will be implemented.

Fish

To avoid and/or minimize impacts on special-status fish, Measures B-3 through B-8 and the following measure would be implemented:

B-18 Any temporary stream diversion would be designed, in coordination with a qualified biologist, to allow for adequate flows (sufficient quality, quantity, and appropriate temperature) through any Project Activity Area; and sediment control measures would be installed around all work areas to prevent runoff from carrying sediment into the diversion channel.

To mitigate impacts on special-status fish, Measure B-9 will be implemented.

Invertebrates

To avoid and/or minimize impacts on special-status invertebrates, the following measure would be implemented:

B-19 Prior to project activities resulting in vegetation removal, a qualified biologist would perform a biological survey to identify any blue elderberry (*Sambucus nigra* ssp. *cerulea*) shrubs within Project Activity Areas. The biologist would clearly mark a minimum 20-foot ESA buffer around the dripline of each identified shrub. If appropriate, the buffer zone may be reduced under the direction of a qualified biologist. Heavy equipment would not be operated within the ESA buffer.

To mitigate impacts on special-status invertebrates, Measure B-9 and the following measure will be implemented:

B-20 If individual blue elderberry shrubs, with stems measuring one inch or greater cannot be avoided and must be removed, impacts on blue elderberry shrubs will be mitigated by purchasing credits at an USFWS approved valley elderberry longhorn beetle conservation bank at a minimum of 1:1 ratio. Final mitigation ratios will be determined through

coordination efforts with the USFWS.

Mammals

To avoid and/or minimize impacts on special-status mammals, Measures B-3 through B-8 and the following measures would be implemented:

B-21 Project activities would be restricted to the lower half of any waterway, as feasible. If work on the upper half of the levee or bank is necessary, a qualified biologist would conduct a biological survey to identify any dens or ground nests and determine whether they are occupied.

B-22 If a kit fox den is discovered within any Project Activity Area, or within 200 feet of any Project Activity Area, a minimum 100-foot buffer would be established from the den. No work would be authorized within the buffer area until a qualified biologist, in coordination with the USFWS and CDFW, has determined that the den is no longer active. Destruction or alteration of a potential, known, or natal/pupping kit fox den, either occupied or unoccupied, would not be authorized until a qualified biologist, in coordination with the USFWS and CDFW, has carefully examined and excavated the den site to confirm the den is unoccupied.

B-23 Prior to project activities, a qualified biologist would conduct a thorough assessment of all trees and structures to be removed or otherwise impacted during project activities to identify potential bat roosting habitat. Where potential roosting habitat is identified, no less than two weeks prior to initiation of project activities, and during the non-breeding and active season (typically October), bats would be safely evicted from roosts directly impacted by project activities under the direction of a qualified biologist. Once bats have been safely evicted, exclusionary devices would be installed to prevent bats from returning and roosting in these areas prior to removal. Roosts that would not be directly impacted by the project activities would be left undisturbed.

B-24 After identification of potential bat roosting habitat, and prior to tree removal, all trees with potential day roosting crevice habitat, such as loose bark and tree cavities, would be removed using a 2-step process. The tree removal would be conducted over two consecutive days under the supervision of a qualified biologist. During step one, all non-habitat trees adjacent to and/or surrounding potential habitat trees, as identified by the qualified biologist, would be removed (or trimmed, if full removal can be avoided). In addition, limited trimming of the potential bat roosting habitat trees (branches and small limbs with no potential roosting features) would be completed on the first day. project staff would only use hand tools (i.e. chainsaws or similar). Step two would be completed on the calendar day immediately following step one. Step two would include removing all potential habitat trees that were previously trimmed and/or avoided during step one.

B-25 In the event that a maternal colony of bats is found, no work would be conducted within 100 feet of the maternal roosting site until the maternal season is finished or the bats have left the site, or as otherwise directed by a qualified biologist. The site would be designated as a sensitive area and protected as such until the bats have left the site. No activities would be authorized adjacent to the roosting site. Combustion equipment, such as generators, pumps, and vehicles, would not be parked or operated under or adjacent to the roosting site. Project staff would not be authorized to enter areas beneath the

colony, especially during the evening exodus (typically between 15 minutes prior to sunset and one hour following sunset).

To mitigate impacts on special-status mammals, Measure B-9 will be implemented.

Mollusks

To avoid and/or minimize impacts on special-status mollusks, Measures B-3, B-4, B-9 and the following measure would be implemented:

B-26 BMPs would be implemented, including the following construction pollution, spill, and erosion prevention measures:

- During project activities, every reasonable precaution would be taken to protect streams and/or riparian habitat from pollution with fuels, oils, and other harmful materials. There would be no side casting of material into any stream.
- An emergency clean-up plan to address any spills of fuel or other material would be available onsite. In the event of a spill, work would be stopped immediately, the emergency clean-up plan would be executed, and the appropriate agency would be notified.
- Good housekeeping practices, use of safer alternative products, such as biodegradable hydraulic fluids, where feasible, and implementation of employee training programs. Project staff would be trained to prevent or reduce the discharge of pollutants from project activities to waters and of the appropriate measures to take should a spill occur.
- Disturbance to existing grades and vegetation would be limited to the actual work area and necessary access routes. All roads, staging areas, and other facilities would be designed to avoid and limit disturbance to stream banks or stream habitats as much as possible. Following completion of work, the contours of the creek bed and creek flow would be returned to pre-project conditions or better.
- Erosion control and sediment detention devices (e.g., silt fences) would be installed at the time of project activities. These devices would be in place during project activities, and after, if necessary, for the purposes of minimizing fine sediment and sediment/water slurry input to flowing water. These devices would be placed at all locations where the likelihood of sediment input exists.

To mitigate impacts on special-status mollusks, Measure B-9 will be implemented.

Reptiles

To avoid and/or minimize impacts on special-status reptiles, Measures B-3 through B-8 and the following measures would be implemented:

B-27 Project activities within potential giant garter snake habitat, typically areas west of Highway 99, would be limited to the smallest area feasible to minimize habitat disturbance. When disturbance to giant garter snake habitat is unavoidable, a qualified biologist would prepare a site-specific avoidance and minimization plan. The plan would be developed, coordinated, and implemented with CDFW and the USFWS if any potential

for any effects on this species are identified, prior to the initiation of any work in this habitat. The plan may include one or more of the following: restricting specific activities to the snake's active season (May 1 to October 1), pre-construction surveys, installation of exclusionary fencing, species relocation, on-site biological monitoring, modification of work practices, and/or other avoidance and minimization strategies recommended by a qualified biologist. All vehicles and equipment within potential giant garter snake habitat would be operated at speeds no greater than three miles per hour. When exclusionary fencing is used, silt fencing would be installed instead of standard ESA fencing to prevent snake entanglement. If a giant garter snake is observed in any Project Activity Area, work would be stopped, and the USFWS and CDFW would be notified. Work within the Project Activity Area would not resume until a qualified biologist, in coordination with the agencies if appropriate, has determined it is safe to proceed.

B-28 Disturbance to suitable estivation habitat for western pond turtles would be avoided during winter, as feasible. If winter work cannot be avoided, focused estivation surveys would be conducted by a qualified biologist for western pond turtle. If western pond turtles are found in any Project Activity Area during project activities, they would be relocated upstream or downstream of the Project Activity Area to an area of suitable habitat by a qualified biologist. If a turtle nest is found in any Project Activity Area during project activities, a buffer would be established under the direction of a qualified biologist and maintained by project staff for the duration of the project activities, wherever feasible.

To mitigate impacts on special-status reptiles, Measure B-9 will be implemented.

Sensitive Communities

To avoid and/or minimize potential impacts on sensitive communities, Measure B-26 and the following measures would be implemented:

B-29 Heavy equipment access to waterways and/or riparian corridor would be limited to predetermined entrance and exit routes from existing roads. The number of routes would be limited to the extent feasible.

B-30 Following project activities, all temporary fill and maintenance debris would be removed from waterways and/or riparian corridor and all temporarily disturbed areas would be re-contoured to match pre-project conditions as closely as possible. All exposed and disturbed soils within non-native vegetative areas would be hydroseeded with a sterile seed mix. All exposed and disturbed soils within native vegetative areas would be hydroseeded with a native seed mix appropriate for the site as approved by a qualified biologist. Seeding would be completed after project activities are finished.

To mitigate for potential impacts on sensitive communities, the following measure will be implemented:

B-31 Compensatory mitigation for impacts on sensitive natural communities, including Fresh Emergent Wetland, Riverine, Valley Foothill Riparian, and Valley Oak Woodland habitats, will be mitigated by on or off-site restoration, purchase of in-lieu fees, or payment into an agency-approved mitigation bank at a minimum 1:1 ratio.

Jurisdictional Wetlands and Waters

To avoid and/or minimize potential impacts on jurisdictional wetlands and waters within and/or directly adjacent to the intended work areas, Measure B-26 and the following measure would be implemented:

B-32 ESA fencing would be installed around wetlands, waters, and riparian habitats at the edges of project activity limits, if there is a reasonable risk that equipment or project activities could encroach on these areas.

To mitigate for potential impacts on jurisdictional wetlands and waters, the following measures will be implemented:

B-33 Permanent losses of wetlands and/or waters resulting from maintenance activities will be mitigated by on or off-site restoration, purchase of in-lieu fees, or payment into an agency-approved mitigation bank at a minimum of 1:1 ratio. Final mitigation ratios will be determined through coordination with regulatory agencies.

B-34 Any oak trees or other native trees within CDFW jurisdiction would be trimmed instead of being removed, as feasible. If a native tree with a DBH of more than 24 inches must be removed, it will be replaced at a 10:1 ratio. All native trees with a DBH of four inches or over will be replaced at a 3:1 ratio, and any native trees with a DBH less than four inches will be mitigated at a 1:1 ratio. All compensatory mitigation on oak trees or other native trees within CDFW jurisdiction will be mitigated by purchasing credits at an agency-approved mitigation bank. No tree replacement is required for the removal of nonnative species.

5. Cultural Resources

Regulatory Setting

CEQA established statutory requirements for the significance of historical resources in Public Resources Code (PRC) Section 21084.1. The CEQA Guidelines (Section 10564.5[c]) also require consideration of potential project impacts to "unique" archaeological sites that do not qualify as historical resources. The statutory requirements for unique archaeological sites that do not qualify as historical resources are established in PRC Section 21083.2. These two PRC sections operate independently to ensure that significant potential effects on historical and archaeological resources are considered as part of a project's environmental analysis. Historical resources, as defined in Section 15064.5 as defined in CEQA regulations, include 1) cultural resources listed in or eligible for listing in the California Register of Historical Resources (California Register); 2) cultural resources included in a local register of historical resources; 3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in one of several historic themes important to California history and development.

Under CEQA, a project may have a significant effect on the environment if the project could result in a substantial adverse change in the significance of a historical resource, meaning the physical demolition, destruction, relocation, or alteration of the resource would be materially impaired. This would include any action that would demolish or adversely alter the physical characteristics of an historical resource that convey its historic significance and qualify it for inclusion in the California Register or in a local register or survey that meets the requirements of PRC Section 5020.1(l) and 5024.1(g). PRC Section 5024 also requires state agencies to identify and protect state-owned resources that meet National Register of Historic Place (National Register) listing criteria. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocation, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

CEQA and CEQA Guidelines also recommend provisions be made for the accidental discovery of archaeological sites, historical resources, or Native American human remains during construction (PRC Section 21083.2(i) CCR Section 15064.5[d and f]).

Local Regulations

Several goals and policies are identified in the *2030 County of Merced General Plan* that pertain to potential cultural resources in the project area (Merced County, 2013). The following goals and policies are related to the project.

- Goal RCR-2 Protect and preserve the cultural, archeological, and historic resources of the County in order to maintain its unique character.
- Policy RCR-2.1 Require development projects that affect archeological sites and artifacts to avoid disturbance or damage to these sites.
- Policy RCR-2.2 Support the preservation of historical structures and areas, particularly those listed on the National Registrar of Historic Places and California Registrar of Historic Places.

- Policy RCR-2.3 Require that the original architectural character of significant State- and Federally-listed historic structures be maintained in compliance with preservation standards and regulations.
- Policy RCR-2.5 Require that, in the event of the discovery of human remains on any project construction site, all work in the vicinity of the find will cease and the County Coroner and Native American Heritage Commission will be notified.
- Policy RCR-2.10 Consult with Native American tribes regarding proposed development projects and land use policy changes consistent with Planning and Zoning Law at Government Code Section 65351, and the OPR Tribal Consultation Guidelines (2005).

Affected Environment

The majority of the project is located in the San Joaquin portion of the Central Valley while the eastern portion includes the Sierra Nevada foothills. As the project consists of maintenance activities to and within existing stream/canal corridors, bridges, and culverts, the Project Area Limits (PAL) would consist of the physical boundaries of these water and transportation conveyance features, as identified in **Figure 4.**

The PAL is centered on waterways within Merced County which have long attracted human settlement in both prehistoric and historic time periods. Waterways often consist of a myriad of tributaries feeding into major rivers, creating areas exploited for their vast and diverse food resources, fresh drinking water, agricultural potential, travel, and transportation/movement of goods. As waterways provided many resources and opportunities, archaeological sites and historic resources are often found in and near them. Cultural resource site types found throughout the PAL vicinity include the following:

- Prehistoric pottery scatters
- Prehistoric habitation sites
- Stone tool production, including both flaked and ground tools;
- Food/resource gathering areas
- Burials
- Cemeteries
- Historic trash scatters
- Historic structural ruins
- Water conveyance and control features (canals, man-made or altered natural stream channels, weirs, check dams, culverts, levees, etc.)
- Agricultural-related cultural resources (irrigation, remnants of abandoned crop rows, etc.)
- Farming/Ranching-related cultural resources (corrals, equipment, fencing, etc.)
- Transportation (bridges/culverts)

As this project consists of a routine maintenance program implemented within several creeks and streams in Merced County, a cultural sensitivity model was developed to determine which areas of the project area had a high sensitivity for cultural resources and would require archaeological and/or architectural survey and resource assessment prior to implementation of any routine maintenance activities to determine if a historical resource is present and would be adversely affected. Cultural resource sensitivity designation is based on the data collected at the Central

California Information Center, the Caltrans Historic Bridge Inventory, and the types of routine maintenance activities proposed.

Frist, the proposed activities were separated into those which constitute non-ground-disturbing, or Above Ground, activities and those which constitute ground-disturbing, or Below Ground, activities, as described in Section 8: Project Description:

Above Ground (no excavation) Maintenance Activities would not result in the alteration of the ground surface and would not involve subsurface ground disturbance. These types of activities would not diminish the characteristics that make a historic resource eligible for the California Register, assuming such a resource was present. Below Ground Maintenance Activities are those which would result in the alteration of the ground surface and subsurface. These activities do have the potential to alter the characteristics which make a historic resource eligible for the California Register, assuming such a resource was present.

Additionally, several of the channelized creeks within the project area have been recorded with the Central California Information Center but were not formally evaluated for California Register eligibility. The proposed project would not alter the characteristics that would make these resources significant.

After assessing the types of proposed maintenance activities, the results of literature research, map research, and a search of records at the Central California Information Center were compiled to generate a cultural resource sensitivity model of the PAL. From this model, three activity categories have been designated for the PAL which detail whether archaeological and/or architectural survey and eligibility assessment is needed prior to implementation of routine maintenance work - ***Category A***, ***Category B***.

Category A

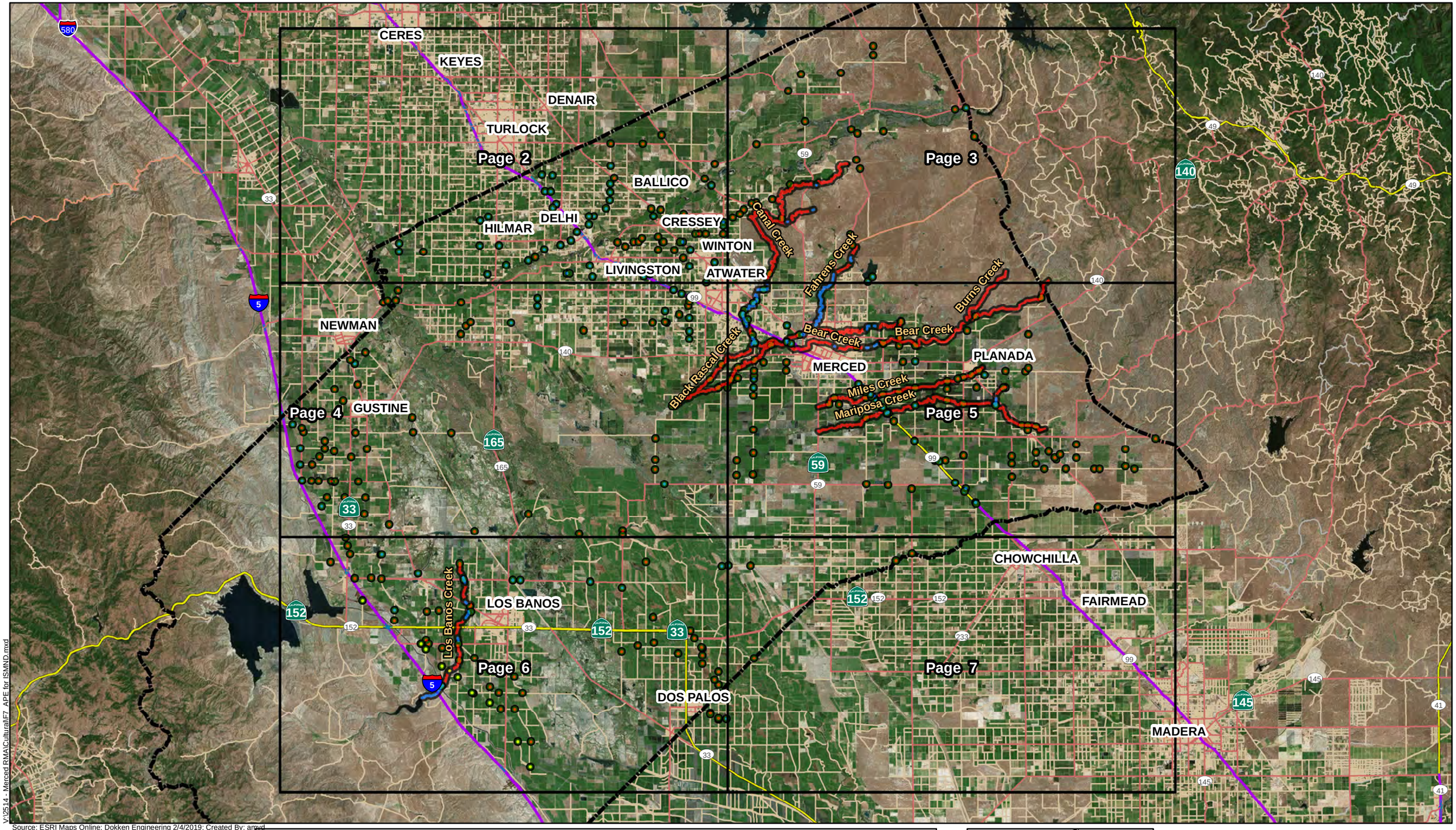
Routine maintenance areas which have not been previously surveyed and/or which are situated near recorded archaeological resources are designated as having *moderate to high* cultural sensitivity, and are classified as ***Category A***. In ***Category A*** designated areas, archaeological survey, eligibility assessment, and mitigation, if appropriate, must occur prior to Below Ground Maintenance (see Section 8, Project Description, for a description of typically above and below ground maintenance and repair activities). Please see **Figure 4** and **Table 4** for more information on the category and locations within the project.

Category B

Areas which have been surveyed and which do not have any recorded historic resources or archaeological resources, have been determined as having *low to very low* cultural sensitivity, and are classified as ***Category B***. Additionally, stream sections that are concrete lined have been categorized as ***Category B*** as the removal of sediment and other activities within these channels have little to no likelihood to adversely impact historical resources. For routine maintenance areas classified as ***Category B*****,** both Above Ground and Below Ground Maintenance Activities are permitted without archaeological survey prior to project implementation.

Table 4. Cultural Resource Sensitivity Categories

Category	Requirements
A	Above Ground (no excavation) Maintenance Activities may proceed as needed without an archaeological survey. Areas which require Below Ground Maintenance Activities must first be surveyed by an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards in Archaeology to determine if any archaeological resource is present and if so, to assess the resource's significance. Once the archaeologist has determined 1) there is no resource; or 2) the resource has no significance; or 3) the resource can be avoided or protected in place; or 4) the resource requires mitigation and mitigation has been completed, then Below Ground Maintenance Activities are permissible. Until the archaeologist determines that the Below Ground Maintenance will not have an adverse effect on historical resources, only Above Ground Maintenance Activities are allowed. If no cultural resources are identified, Below Ground Maintenance Activities may proceed, as needed.
B	No historical properties identified, or the Below Ground Maintenance Activities would not adversely impact potential historic properties in this area. Both Above Ground and Below Ground Maintenance Activities may proceed without an archaeological survey.



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Source: ESRI Maps Online; Dokken Engineering 2/4/2019; Created By: amyd

0 25 50 75 100 Miles

Category A - Preconstruction Archaeological Survey Required for Below Ground Activity; Above Ground Maintenance Allowed

Category B - Above and Below Ground Maintenance Allowed without Archaeological Survey

Merced County

Figure 4.1
Cultural Sensitivity Map
Page 1 of 7
Merced Streams Group
Operations and Maintenance Permitting Program
Merced County, California

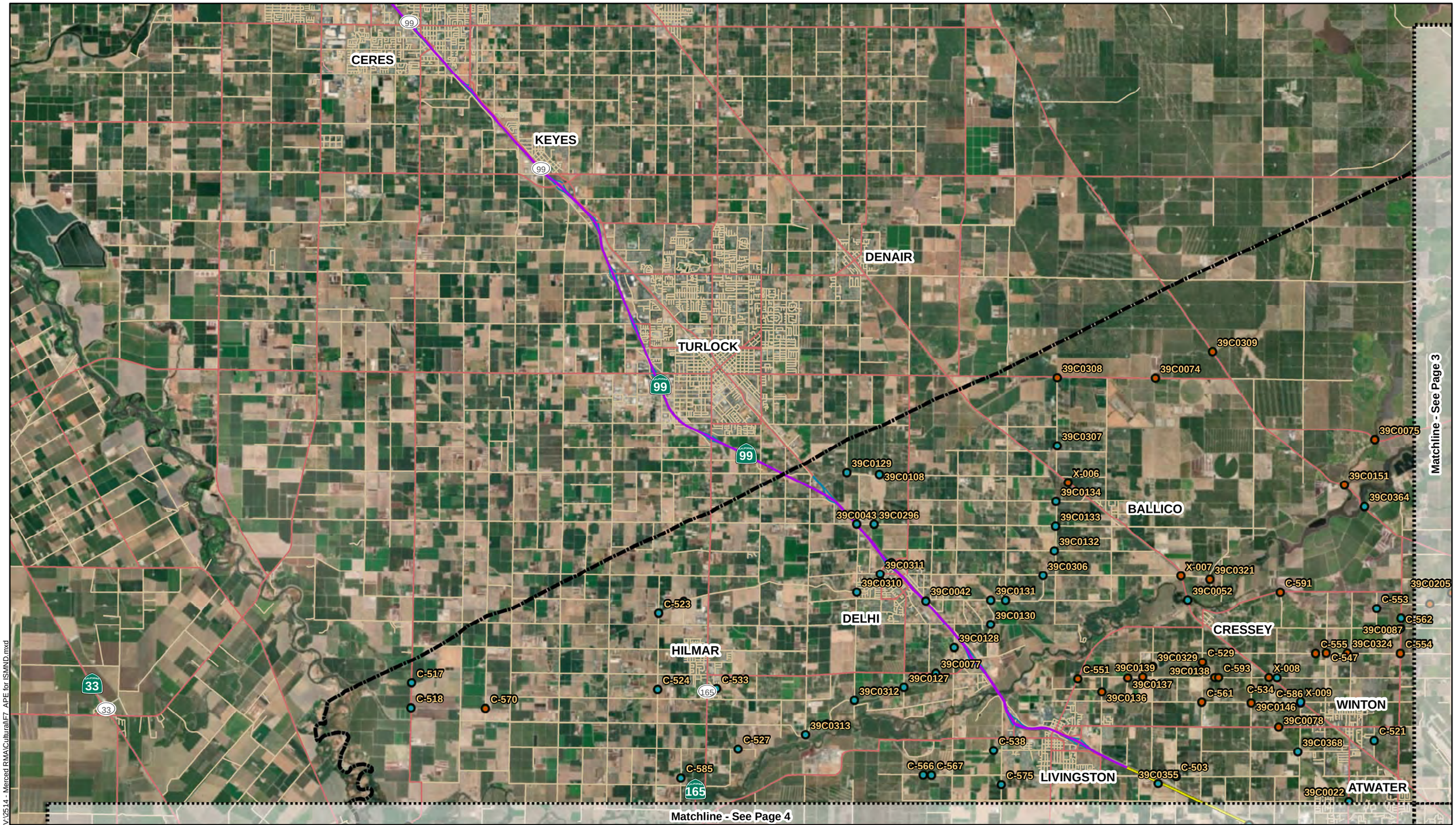

Figure 4.2
Cultural Sensitivity Map
Page 2 of 7
Merced Streams Group
Operations and Maintenance Permitting Program
Merced County, California

39C0023
39C0071
39C0225
39C0226
39C0224
C-525
39C0014
C-574
39C0228
C-584
39C0068
39C0067
39C0154
39C0153
39C0327
39C0277
39C0152
Edendale Creek
C-553
39C0326
39C0155
C-562
C-554
Canal Creek
39C0066
39C0179
39C0160
Fahrens Creek
39C0181
39C0180
39C0159
C-558
39C0070
39C0069
Burns Creek
49
59
140
Matchline - See Page 2
Matchline - See Page 5
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Source: ESRI Maps Online; Dokken Engineering 2/4/2019; Created By: anwd

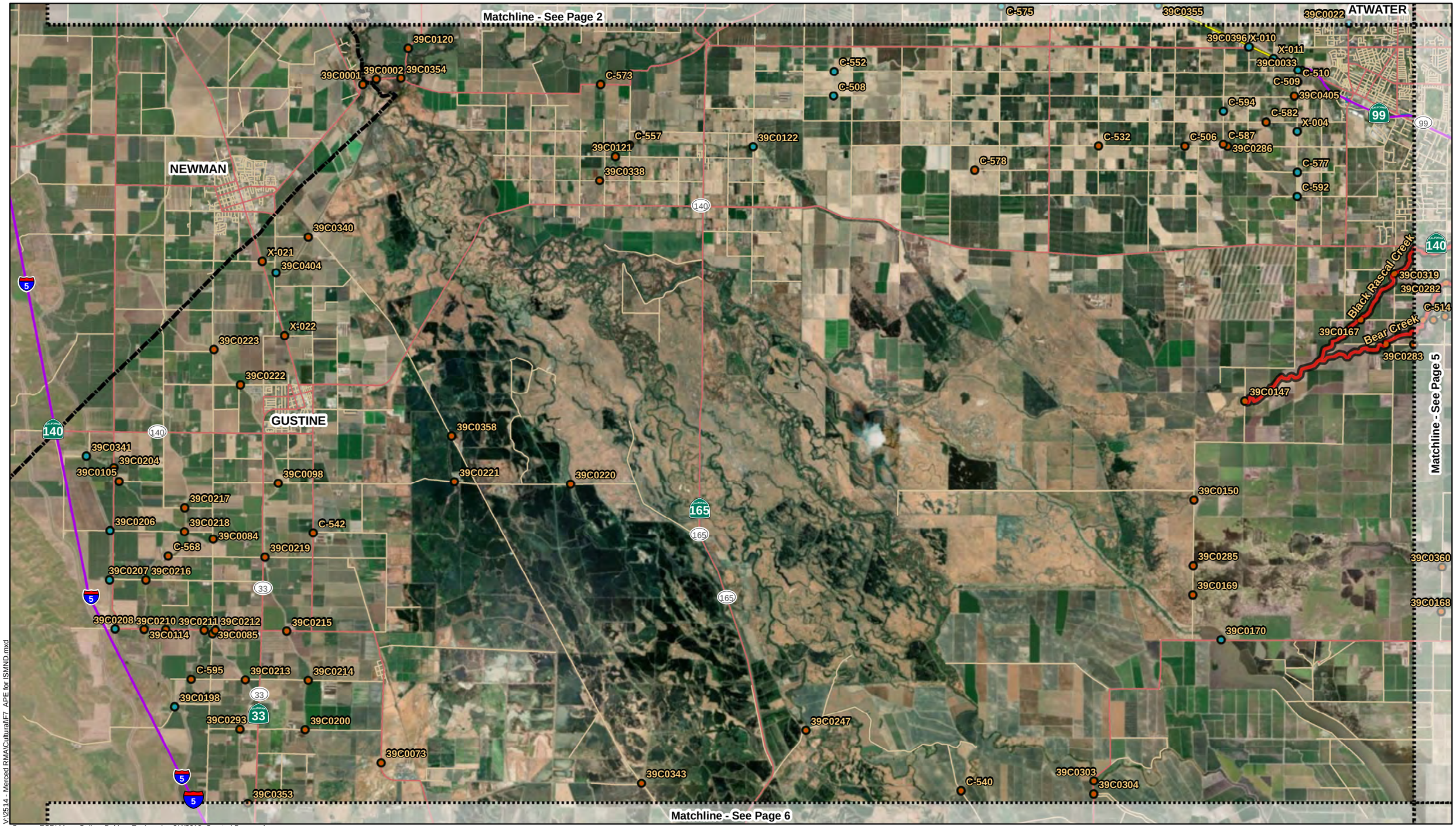
0 25 50 75 100 Miles

Category A - Preconstruction Archaeological Survey Required for Below Ground Activity; Above Ground Maintenance Allowed

Category B - Above and Below Ground Maintenance Allowed without Archaeological Survey

Merced County

Figure 4.3
Cultural Sensitivity Map
Page 3 of 7
Merced Streams Group
Operations and Maintenance Permitting Program
Merced County, California



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Source: ESRI Maps Online; Dokken Engineering 2/4/2019; Created By: anwd

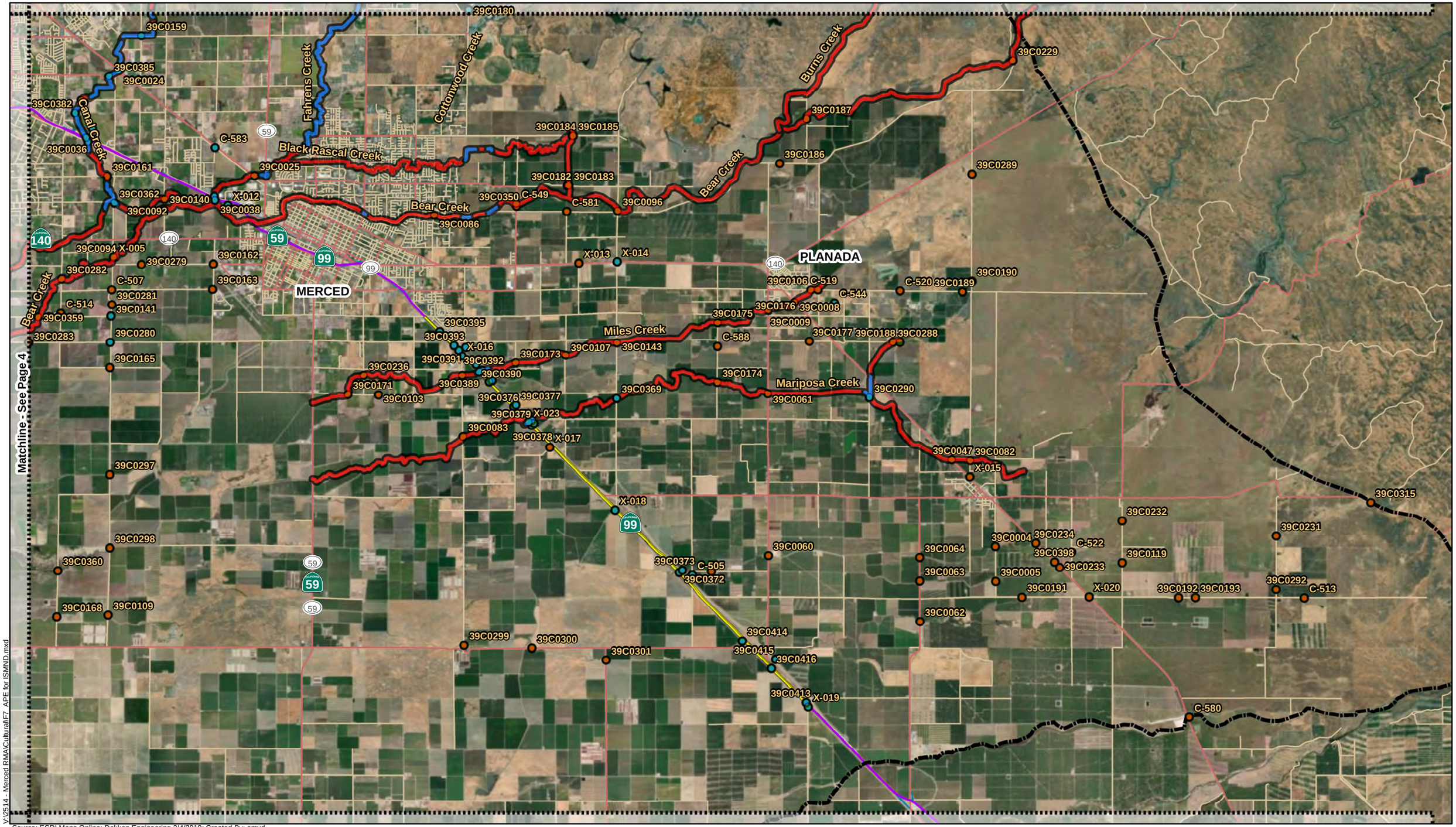
0 25 50 75 100 Miles

Category A - Preconstruction Archaeological Survey Required for Below Ground Activity; Above Ground Maintenance Allowed

Category B - Above and Below Ground Maintenance Allowed without Archaeological Survey

Merced County

Figure 4.4
Cultural Sensitivity Map
Page 4 of 7
Merced Streams Group
Operations and Maintenance Permitting Program
Merced County, California



V:\2514 - Merced RMA\Cultural\F7_APE for ISMND.mxd

Source: ESRI Maps Online; Dokken Engineering 2/4/2019; Created By: amwd

Category A - Preconstruction Archaeological Survey Required for Below Ground Activity; Above Ground Maintenance Allowed

Category B - Above and Below Ground Maintenance Allowed without Archaeological Survey

Merced County

0 25 50 75 100 Miles

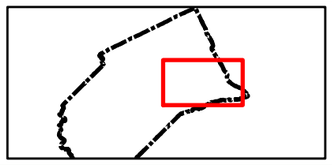
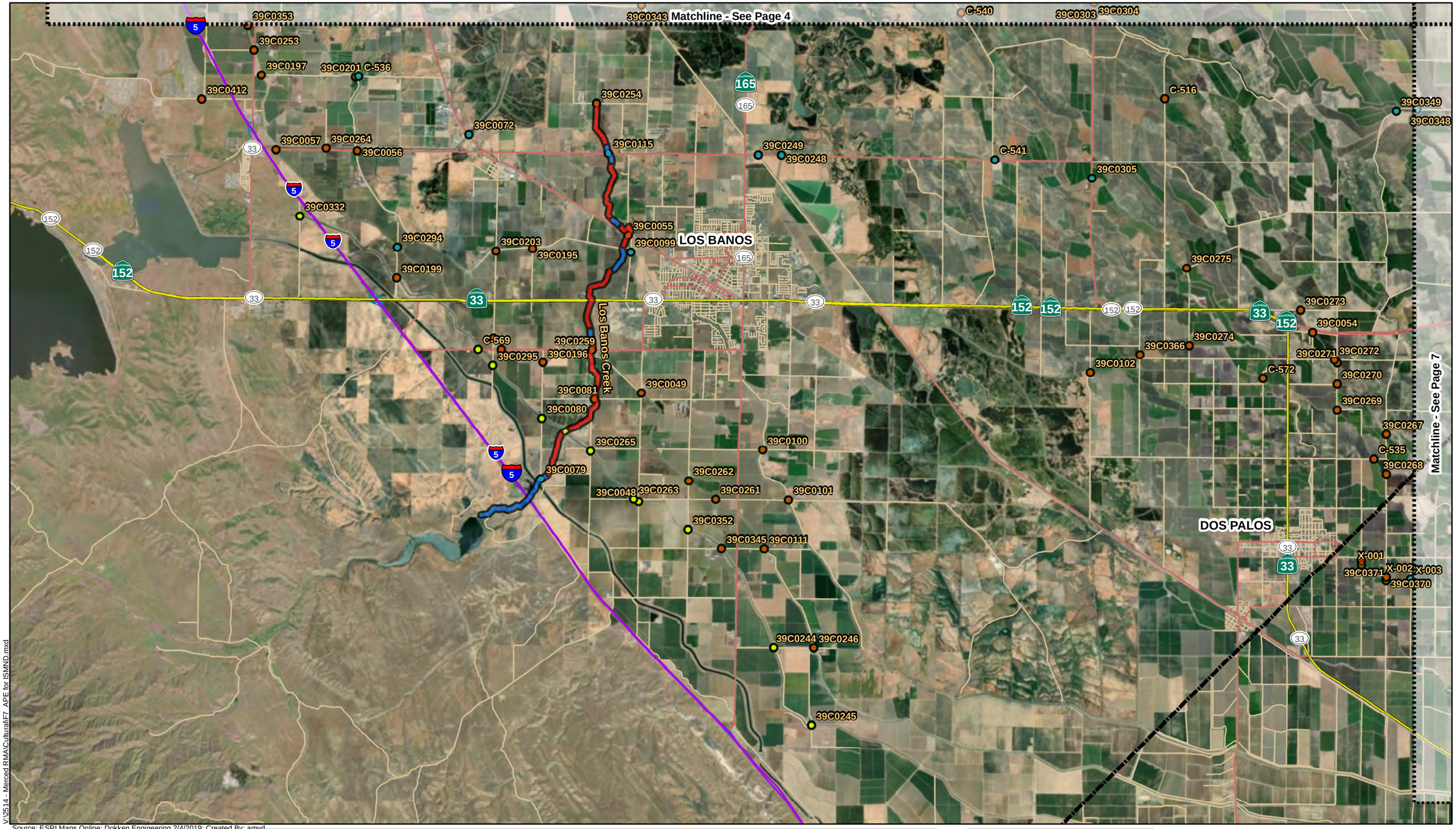


Figure 4.5
Cultural Sensitivity Map
Page 5 of 7
Merced Streams Group
Operations and Maintenance Permitting Program
Merced County, California



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Source: ESRI Maps Online; Dokken Engineering 2/4/2019; Created By: anwd

0 25 50 75 100 Miles

Category A - Preconstruction Archaeological Survey Required for Below Ground Activity; Above Ground Maintenance Allowed

Category B - Above and Below Ground Maintenance Allowed without Archaeological Survey

Merced County

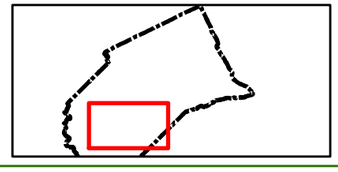

Figure 4.6
Cultural Sensitivity Map
Page 6 of 7
Merced Streams Group
Operations and Maintenance Permitting Program
Merced County, California

Matchline - See Page 5

Matchline - See Page 6

39C0349
39C0348
39C0347
C-511
C-546
C-545
39C0268
X-002
X-003
39C0370

CHOWCHILLA
FAIRMEAD
MADERA

59
99
233
152
33

V:\2514 - Merced RMA\Cultural\F7_APE for ISMND.mxd

Source: ESRI Maps Online; Dokken Engineering 2/4/2019; Created By: amvd

0 25 50 75 100 Miles

Category A - Preconstruction Archaeological Survey Required for Below Ground Activity; Above Ground Maintenance Allowed

Category B - Above and Below Ground Maintenance Allowed without Archaeological Survey

Merced County

Figure 4.7
Cultural Sensitivity Map
Page 7 of 7
Merced Streams Group
Operations and Maintenance Permitting Program
Merced County, California

Environmental Consequences

Would the project:

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

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

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

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion a & b): Some routine maintenance activities have the potential to harm archaeological or historic period resources, assuming such resources are present, if the appropriate mitigation measures are not followed. Activities that take place above or on the ground surface, the Above Ground Maintenance Activities defined above, do not have the potential to harm these resources; however, activities that require below ground (any type of excavation or earth movement), the Below Ground Maintenance Activities defined above, do have the ability to harm historical or archaeological resources. As this project consists of a routine maintenance program implemented over the entirety of Merced County, a category system has been created to detail whether archaeological and/or architectural survey and eligibility assessment is needed prior to implementation of routine maintenance work. Consultation of **Figure 4** and implementation of measures CR-1 through CR-4 would reduce potential impacts to historical and archaeological resources to less than significant with mitigation incorporated.

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

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion c): No known burial sites or cemeteries exist within the streams and channels where routine maintenance activities would occur. If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, who will then notify the Most

Likely Descendent (MLD). Further provisions of PRC 5097.98 are to be followed as applicable. Implementation of measure CR-4 would reduce this potential impact to less than significant with mitigation incorporated.

Avoidance, Minimization, and Mitigation Measures

CR-1 In previously undisturbed, routine maintenance areas classified as *Category A*, before Below Ground Maintenance Activities begin, an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology must first conduct a pedestrian survey to determine if any archaeological resource is present and if so, to assess the resource's significance. Once the archaeologist has determined 1) there is no resource; or 2) the resource has no significance; or 3) the resource can be avoided or protected in place; or 4) the resource requires mitigation and mitigation has been completed, then Below Ground Maintenance Activities are permissible. Until the archaeologist determines that the Below Ground Maintenance will not have an adverse effect on historical resources, only Above Ground Maintenance Activities are allowed.

CR-2 Should archaeological and/or tribal monitoring for any activity under the maintenance program, the archaeological and/or tribal monitor shall inspect the project area during earth disturbing activities for evidence of cultural resources. The archaeological monitor and/or tribal monitor has the authority to request work be stopped, diverted, or slowed if any cultural resource is identified so that the significance of the resource can be assessed.

CR-3 If previously unidentified archaeological and/or tribal cultural resources are unearthed during maintenance activities, all ground disturbing activities shall be immediately suspended in that area and within 100 feet of the discovery. A qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology, the Streams Group, and, if the discovery involves Native American cultural resources, the Table Mountain Rancheria, who is culturally affiliated with the area, shall assess the significance of the find and determine appropriate mitigation, if necessary. Additional archaeological survey and/or eligibility assessment will be needed if project limits are extended beyond the present routine maintenance area limits. If adverse impacts to tribal cultural resources, unique Native American archaeological resources, or other Native American cultural resources occur during the project, the Streams Group shall consult with the Table Mountain Rancheria regarding mitigation, pursuant to Public Resources Code section 21084.3(a) and (b) and CEQA Guidelines 15370.

CR-4 If human remains are discovered during maintenance activities, including disarticulated or cremated remains, all ground-disturbing activities within 100 feet of the remains shall immediately cease and the Streams Group Project Manager and Streams Group Planning Manager shall be notified.

- In accordance with California State Health and Safety Code Section 7050.5, no further disturbance shall occur until the following steps have been completed:
    - The County Coroner has made the necessary findings as to origin and disposition pursuant to PRC § 5097.98.
    - If the remains are determined by the County Coroner to be Native American,

the Native American Heritage Commission (NAHC) shall be notified within 24 hours so that the NAHC may identify and contact a Most Likely Descendant (MLD) regarding the discovery. It is further recommended that a professional archaeologist with burial recovery experience conduct a field investigation of the specific site and consult with the MLD, if any. As necessary and appropriate, a professional archaeologist may provide technical assistance to the MLD, including but not limited to, the removal of the human remains.

6. Energy

Regulatory Setting

The California Public Utilities Commission (CPUC) adopted an Energy Efficiency Strategic Plan in September of 2008 outlining a roadmap to maximum energy savings for California's groups and sectors (California Public Utilities Commission, 2011).

Privately owned companies that provide electricity, and natural gas, are regulated by the CPUC. The CPUC is available to help resolve disputes and work through issues unresolvable through the service provider.

Environmental Consequences

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion a): Operation of the project would not require an energy input beyond that which is currently required because the project would not increase vehicle use. However, the project would require the use of equipment that requires fuel or electricity to operate. The use of this equipment would be temporary and intermittent throughout the project and limited to minor energy needs, such as gasoline or diesel for worker vehicles, small pieces of maintenance equipment, and generators used to power equipment. As such, the project would not result in significant impacts of wasteful or inefficient energy consumption. Therefore, impacts would be less than significant.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion b): There are no known state or local plans for renewable energy or energy efficiency that would apply to the project. Therefore, there would be no impact.

7. Geology and Soils

Regulatory Setting

Federal and State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code [PRC] Sections 2621 to 2630) was passed in 1972 to provide a statewide mechanism for reducing the hazard of surface fault rupture to structures used for human occupancy. The main purpose of the Act is to prevent the siting of buildings used for human occupancy across the traces of active faults. It should be noted that the Act addresses the potential hazard of surface fault rupture and is not directed toward other earthquake hazards, such as seismically induced ground shaking or landslides.

The law requires the State Geologist to identify regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults, and to depict these zones on topographic base maps, typically at a scale of one inch to 2,000 feet. Earthquake Fault Zones vary in width, although they are often 0.75 mile wide. Once published, the maps are distributed to the affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. With the exception of single-family wood-frame and steel-frame dwellings that are not part of a larger development (i.e. four units or more), local agencies are required to regulate development within the mapped zones. In general, construction within 50 feet of an active fault zone is prohibited.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (PRC Sections 2690 to 2699.6), which was passed in 1990, addresses earthquake hazards other than surface fault rupture. These hazards include strong ground shaking, earthquake-induced landslides, liquefaction, or other ground failures. Much like the Alquist-Priolo Earthquake Fault Zoning Act discussed above, these seismic hazard zones are mapped by the State Geologist to assist local government in the land use planning process. The Act states, "It is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety." The Act also states, "Cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard."

California Building Code

The State of California provides minimum standards for building design through the California Building Standards Code (California Code of Regulations, Title 24). Where no other building codes apply, Chapter 29 regulates excavation, foundations, and retaining walls. The California Building Standards Code (CBC) applies to building design and construction in the state and is based on the federal Uniform Building Code (UBC) used widely throughout the country (generally adopted on a state-by-state or district-by-district basis). The CBC has been modified for California conditions with more detailed and/or more stringent regulations.

The State earthquake protection law (California Health and Safety Code Section 19100, et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, and Appendix Chapter A33 regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction. The CBC is updated every three years, and the current 2016 CBC took effect January 1, 2017.

Local Regulations

2030 Merced County General Plan

The Health and Safety Element of the General Plan contains the following policies that are applicable to the project. (Merced County, 2013)

- Goal HS-1: Minimize the loss of life, injury, and property damage of county residents due to seismic and geologic hazards.
- Policy NR-3.1: Soil Protection (RDR/SO) Protect soil resources from erosion, contamination, and other effects that substantially reduce their value or lead to the creation of hazards.

Affected Environment

The project area is outside of the Alquist-Priolo Earthquake Fault Zone, and there are no Alquist-Priolo faults in Merced County. There are several active faults that affect seismic activity near Merced County, including the San Andreas Fault, approximately 15 miles west of the county; the Hayward, Greenville, and Calaveras Faults northwest of the county; and the Bear Mountain Fault Zone, approximately five miles east of the county (Merced County, 2012). The only known active earthquake fault in Merced County is the Ortigalita fault, located in the western quarter of the county, dissecting the Coast Range in a northwesterly direction. The Ortigalita Fault, approximately 40 miles west of the project area, has not been active in the last 1,800 years; however, there is no guarantee that it will never become active again (Merced County, 2012).

Environmental Consequences

Would the project:

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

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☐ Less Than Significant Impact ☒ No Impact

Discussion a) i): Because the project area is outside of the Alquist-Priolo fault zone, the potential for surface fault rupture is considered low. In addition, because the project involves routine maintenance of creeks and channels to preserve channel capacity, there would be no construction of or modification of structures that would pose risks related to seismic safety. Therefore, there would be no impact.

ii) Strong seismic ground shaking?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☐ Less Than Significant Impact ☒ No Impact

Discussion a) ii): While the project area is in proximity to active faults, strong seismic shaking would not have an impact on the maintenance of these streams. Maintenance of these streams would involve cleaning and removing vegetation, debris, sediments, and trash. As such, the project would not involve structural development or installation. Therefore, there would be no impact.

iii) Seismic-related ground failure, including liquefaction?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☐ Less Than Significant Impact ☒ No Impact

Discussion a) iii): Liquefaction in soils and sediments occurs during earthquake events when soil material is transformed from a solid state to a liquid state generated by an increase in pressure between pore space and soil particles. No specific liquefaction hazard areas have been identified in the county (Merced County, 2013a). Therefore, there is no impact to the potential for exposure of people or structures to adverse effects, including the risk of loss, injury, or death involving liquefaction.

iv) Landslides?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☐ Less Than Significant Impact ☒ No Impact

Discussion a) iv): Factors that contribute to landslide potential are steep slopes, unstable terrain, and proximity to earthquake faults. There are currently no landslide inventory maps that cover the county; however, landslide risks are considered low because much of the county is within the low-lying, flat areas of the Central Valley basin (Merced County, 2012). Streambed and channel

maintenance activities would not involve changes to terrain that could be subject to landslides. Therefore, there would be no impact from landslides as a result of the project.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion b): The project could result in temporary inadvertent soil erosion due to vegetation removal in the project vicinity. However, according to the project description, all project activities aim to control and reduce the amount of soil and sediment erosion by repairing and implementing erosion control methods, removing dead or invasive vegetation, and limiting project activities to when the area is dry or during the lowest annual flow.

No long-term impacts would occur due to the project. Implementation of avoidance measures outlined within the project description and at the end of this section would help to reduce soil erosion, but it would not fully prevent it. As such, the project would not result in a substantial soil erosion or the loss of topsoil. Therefore, impacts would be less than significant.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c): See Responses VI a) (iii)-(iv) above. Project improvements would include maintenance on various streams across Merced County and wouldn't involve the construction of structures. Therefore, the project would not affect soil stability and there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion d): Expansive soil is a soil that is prone to large volume changes (swelling and shrinking) that are directly related to changes in water content; with higher moisture levels, the soils would swell, and with lower moisture levels, the soils would shrink. According to Table 18-1-B of the California Building Code, special foundation design is required if the Expansion Index (which predicts the swelling potential of compacted soils) is higher than 20. Based on a 1989 United States Geological Survey (USGS) map, the county of Merced is located in an area that contains little or no soil swelling or where data is insufficient to indicate the swelling potential of the clay (U.S. Geological Survey, 1989). In addition to the improbability of the presence of expansive soil,

maintenance activities aim to prevent soil erosion and maintain proper channel flow, and do not involve placement or maintenance of structures that would be affected by expansive soils, should they be present. Therefore, there would be no impact from expansive soils.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion e): The project would not require the installation of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion f): The University of California Museum of Paleontology lists over 200-recovered paleontological localities in Merced County (University of California Berkeley Museum of Paleontology, 2019), including vertebrate, invertebrate, plant and microfossils. Generally, all vertebrate fossils are considered to be paleontologically significant. Other fossil remains may also be significant in some cases. The majority of these have been found in the foothill areas of the eastern and western parts of the county. Mapped localities in the project vicinity include several vertebrate finds on the upper reaches of Black Rascal Creek, upstream of the project area, and one locality near Los Baños Creek, very close to the project area. There are no specifically mapped known localities on any stream channel within the project area.

Fossil-bearing geological formations in the project area could include fluvially deposited vertebrate, which could potentially be exposed in creek beds, including ancient creek beds, and other erosional features in the valley, although such occurrences are rare. The proposed project generally would not require deep excavations and thus has low potential to expose the underlying formations or any paleontological resources, should such resources be present. However, there is a potential for fossils to be exposed by stream channel erosion or by excavations associated with erosion control.

Unanticipated and accidental paleontological discoveries during project implementation could have the potential to affect paleontological resources. If paleontological resources are found, all work in the area would stop until a qualified paleontologist completes a determination of the find's significance, as detailed in measure G-1. Therefore, impacts to unique paleontological or geological features would be less than significant with mitigation incorporated.

Avoidance, Minimization, and Mitigation Measures

Standard erosion and sedimentation control measures would be implemented to avoid erosion and/or unstable soil conditions.

G-1 The Streams Group shall ensure crews are informed of the following information during maintenance worker environmental training:

- If substantial fossil remains (particularly vertebrate remains) are discovered during earth-disturbing activities on the project site, activities will stop immediately until a state-registered Professional Geologist or Qualified Professional Paleontologist can assess the nature and importance of the find and a Qualified Professional Paleontologist can recommend appropriate treatment. Treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. The Streams Group will be responsible for ensuring that recommendations regarding treatment and reporting are implemented.

8. Greenhouse Gas Emissions

Regulatory Setting

There are numerous state plans, policies, regulations, and laws related to Greenhouse Gases (GHG) and global climate change that 1) establish overall state policies and GHG reduction targets; 2) require state or local actions that result in direct or indirect GHG emission reductions for the project; 3) require CEQA analysis of GHG emissions; and 4) provide generally-accepted guidance in performing GHG analyses. The major components of California's climate change policy are reviewed below.

State Regulations

Assembly Bill (AB) 32

Assembly Bill (AB) 32, or the California Global Warming Solutions Act of 2006, was passed to establish regulations that reduce GHG emissions in California 1990 levels by 2020, and to monitor and enforce compliance with the program. As part of AB 32, a scoping plan was created to outline the strategies for meeting emissions goals (California Air Resources Board, 2017).

Senate Bill 97 and Amendments to the State CEQA Guidelines

As directed by Senate Bill 97, the California Natural Resources Agency adopted amendments to the State CEQA Guidelines on December 30, 2009, adding a new Section 15064.4, "Determining the Significance of Impacts from Greenhouse Gas Emissions," and a new Section 15126.4(c), "Mitigation Measures Related to Greenhouse Gas Emissions." The amendments became effective on March 18, 2010.

CARB GHG Emissions Data and Scoping Plan

Assembly Bill 32 requires CARB to develop a scoping plan to lower the state's GHG emissions to meet the 2020 limit. The Assembly Bill 32 Scoping Plan was approved at the December 2008 CARB meeting, and the First Update to the Assembly Bill 32 Scoping Plan was approved in May 2014 (CARB, 2014). Key elements of the scoping plan include expanding and strengthening existing energy efficiency programs and building and appliance standards; achieving a statewide renewable energy mix of 33 percent; developing a California cap and trade program linked with other similar programs; establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; implementing existing laws and standards, such as California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and issuing targeted fees to fund the state's long-term commitment to Assembly Bill 32 administration.

Local Regulations

2030 Merced County General Plan

To implement AB 32, the SJVAPCD has adopted emission reduction targets and BMPs that must be met by each jurisdiction in the district, including the County. The Air Quality Element of the General Plan also includes greenhouse gas reduction and climate change adaptation policies, with the goal of reducing air pollutants and greenhouse gas emissions and facilitating adaptation in anticipation of consequences from future global and local climate change.

Affected Environment

Greenhouse gases are gases that trap heat in the atmosphere. The transportation sector (i.e., the movement of people and goods by cars, trucks, trains, ships, airplanes, and other vehicles) accounts for 37 percent of total GHG emissions in California (California Air Resources Board, 2015). The majority of GHG from transportation are carbon dioxide (CO2) emissions resulting from the combustion of petroleum-based products, like gasoline, in internal combustion engines (U.S. Environmental Protection Agency, 2015). The largest sources of transportation-related GHG emissions include passenger cars and light-duty trucks, which account for over half of the emissions from the sector.

Environmental Consequences

Would the project:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion a): The project is not expected to increase GHG emissions over the long term because it is limited to routine maintenance of streams and channels and does not include any elements that would produce GHG emissions. However, the project would result in minimal and temporary GHG emission during implementation due to the use of maintenance tools, removal of waste, and worker commutes. As such, the contribution of GHG's would be minimal. Therefore, impacts would be less than significant.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion b): As discussed in response VII a) above, maintenance of the project could temporarily contribute to minimal increases in GHG emissions. Therefore, the project is not expected to conflict with any local or state targets for GHG emissions reduction, and impacts would be less than significant.

9. Hazards and Hazardous Materials

Regulatory Setting

State Regulations

Hazardous Waste and Substances Site List - Site Cleanup (Cortese List)

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the CEQA requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. California Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

The California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the State of California. HWCL implements Resource Conservation and Recovery Act (RCRA) as a "cradle-to-grave" waste management system in the State. The law states that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. HWCL also establishes criteria for the reuse and recycling of hazardous wastes. The law exceeds federal requirements by mandating source reduction planning, and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of wastes and waste management activities that are not covered by RCRA.

California Code of Regulations

Most state and federal regulations and requirements that apply to generators of hazardous waste are spelled out in the California Code of Regulations (CCR), Title 22, Division 4.5. Title 22 contains detailed compliance requirements for hazardous waste generators and transporters, and treatment, storage, and disposal facilities. Because California is a fully authorized State according to RCRA, most RCRA regulations (those contained in 40 Code of Federal Regulations [CFR] 260, et seq.) have been duplicated and integrated into Title 22. However, because the DTSC regulates hazardous waste more stringently than the EPA, Title 22 contains fewer exemptions and exclusions than 40 CFR 260. Title 22 also regulates a wider range of waste types and waste management activities than RCRA regulations in 40 CFR 260. To make regulatory requirements more accessible and easier to follow, California compiled the hazardous materials, waste, and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR Title 26 "Toxics." However, California hazardous waste regulations are still commonly referred to as Title 22.

Local Regulations

2030 Merced County General Plan

The Health and Safety Element of the General Plan contains the following policies that are applicable to the project (Merced County, 2013).

- Policy HS-5.1: Compliance with Safety Standards. Require that hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards.

Affected Environment

The study area for hazardous materials is considered the area most sensitive to potential hazardous materials and waste impacts that could result from maintenance activities. The project includes maintenance and repair work on streams, creeks and other water channels within various locations in Merced County, as described in Section 8, Project Description. Project locations are found with in urban and rural areas; however, most of the locations are found in rural agricultural regions.

According to the Department of Toxic Substance Control database, EnviroStor, there are six active sites within Merced County and there are only two active sites within a two-mile radius of the project area (California Department of Toxic Substance Control, 2018).

- Air Force Real Property Agency/Castle: 3670 Thunderbird Ave., Atwater
    - According to the EnviroStor database, this airport site is currently undergoing RCRA closure; As such, MID considers this site to be closed.
- PG&E Manufactured Gas Plant: The block of 14th, 15th, L and M streets, City of Merced
    - A voluntary cleanup site located in downtown Merced

Environmental Consequences

Would the project:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion a): The project includes maintenance and repair work on streams, creeks and other water channels within various locations in Merced County, as described in Section 8, Project Description. There is potential for the use of ground squirrel bait which is toxic to rodents that continuously consume the product. Although there would be use of potentially toxic pesticides, application and use would be minimal and the maintenance crew would properly handle the substance according to manufacturer specifications. Considering this and the adopted avoidance measures, the project would not create a significant hazard to the public or the environment from hazardous materials. Therefore, impacts would be less than significant.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☒ Less Than Significant Impact ☐ No Impact

Discussion b): Aside from rare and minimal pesticide use, maintenance activities would not involve the use of hazardous materials. Therefore, impacts involving accident conditions or release of hazardous materials would be less than significant.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☒ Less Than Significant Impact ☐ No Impact

Discussion c): Some of the potential maintenance sites are located within close proximity to schools. There is potential for use of a ground squirrel pesticide. However, use would be minimal and unlikely to leave the immediate vicinity of the stream or create a risk to school populations. With the implementation of avoidance measures, the project would not emit hazardous waste within the vicinity of a school. Therefore, impacts would be less than significant.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☐ Less Than Significant Impact ☒ No Impact

Discussion d): According to the DTSC, there are voluntary cleanup sites within a two-mile proximity of potential project sites (California Department of Toxic Substance Control, 2018). While the cleanup sites are located within close proximity to the project area, the project would not interfere with soils or materials found at these sites. Therefore, there would be no impact.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☐ Less Than Significant Impact ☒ No Impact

Discussion e): A project site can be found 0.5 mile west of the Merced County Castle Airport and 1.3 miles north of the Merced Regional Airport/Macready Field (MEC). Stream maintenance

would not release toxic substances, increase airborne debris, or involve the construction of vertical structures within the project buffer zone. Therefore, there would be no impact to airports.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion f): The project area is surrounded by agricultural land, including row crops and orchards, and residential development, primarily in the City of Merced. The project area is not in a wildland area. Project operation and maintenance would not expose people or structures to risks involving wildland fires, and there would be no impact.

Avoidance

- Any equipment or vehicles driven and/or operated adjacent to the stream shall be checked and maintained daily to prevent leaks of fuel or other machine fluids.

- Staging areas shall be located in areas where spills cannot enter the stream or riparian area.

10. Hydrology and Water Quality

Regulatory Setting

Federal and State Regulations

Federal Clean Water Act

The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the waters of the U.S. and regulating quality standards for surface waters, including waters of the state. Section 404 of the CWA requires a permit for discharges of dredged or fill material into the navigable waters of the U.S. from the USACE. Section 401 of the CWA requires that any applicant for a federal permit for an activity that may result in any discharge into navigable waters shall provide the permitting agency with a certification from the applicable state agency that such discharge would comply with state water quality requirements. In California, the applicable state agency is the State Water Resources Control Board, which supports the regulatory activities of nine RWQCB. The RWQCB that oversees water quality compliance in the project area is the Central Valley RWQCB.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include groundwater and surface waters not considered waters of the U.S. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDR) and may be required even when the discharge is already permitted or exempt under the CWA.

California Fish and Game Code, Section 1602

Section 1602 of the California Fish and Game Code governs maintenance activities that substantially divert or obstruct natural stream flow or substantially change the bed, channel, or bank of any river, stream, or lake under the jurisdiction of CDFW. Under Section 1602, an SAA must be issued by the CDFW prior to the initiation of maintenance activities that may substantially modify a river, stream, or lake under CDFW's jurisdiction. Under the California Fish and Game Code, the limits of CDFW's jurisdiction within streams and other drainages extends from the top of the stream bank to the top of the opposite bank, to the outer drip line in areas containing riparian vegetation, and/or within the 100-year floodplain of a stream or river system containing fish or wildlife resources.

Executive Order 11988 (Floodplain Management, 1977)

Executive Order 11988 (Floodplain Management) directs all federal agencies to avoid, to the extent possible, long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Requirements for compliance are outlined in Title 23, Code of Federal Regulations (CFR), Part 650, Subpart A (23 CFR 650A) titled "Location and Hydraulic Design of Encroachment on Floodplains" (2015).

If the preferred alternative involves significant encroachment onto the floodplain, the final environmental document (final Environmental Impact Statement or Finding of No Significant Impact) must include:

- The reasons why the proposed action must be located in the floodplain;
- The alternatives considered and why they were not practicable; and
- A statement indicating whether the action conforms to applicable state or local floodplain protection standards.

Executive Order 13690 (Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input)

The Federal Flood Risk Management Standard (FFRMS) is the national flood risk management standard established by Executive Order 13690 to be incorporated into existing processes used to implement Executive Order 11988. Executive Order 13690 amends "Executive Order 11988, Floodplain Management," and directs all federal agencies to avoid conducting, allowing, or supporting construction in the base floodplain. The executive order also directs federal agencies to take action to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by the floodplain. The floodplain elevation and flood hazard area should be the result of using a climate-informed science approach.

The FFRMS requires all future federal investments in and affecting floodplains to meet the level of resilience as established by the Executive Order 13690. The vertical flood elevation and corresponding horizontal floodplain determined using the approaches in the FFRMS establish the level to which a structure or facility must be resilient. This may include using structural or nonstructural methods to reduce or prevent damage; elevating a structure; or, where appropriate, designing it to adapt to, withstand, and rapidly recover from a flood event. The implementation of the Executive Order 13690 for floodplains gives agencies the flexibility to select one of the following approaches for establishing the flood elevation and hazard area used in siting, design, and construction:

- Use data and methods informed by best-available actionable hydrologic and hydraulic data and methods that integrate correct and future changes in flooding based on climate-informed science;
- Build two feet above the 100-year (one percent chance annually) flood elevation for standard non-critical projects, and three feet above the 100-year flood elevation for critical projects, such as hospitals and evacuation centers;
- Build to the 500-year (0.2 percent chance annually) flood elevation; or
- Build to an elevation and flood hazard area that results from using any other method identified in an update to the FFRMS.

Executive Order 13690 is not a self-implementing requirement. Both the U.S. Department of Transportation (DOT) and the FHWA have to take actions to update their procedures before they apply to FHWA projects. The U.S. DOT has been working on an implementation plan to comply with Executive Order 13690. However, no FHWA programs should deviate from the existing

requirements (23 CFR 650A) until promulgation of any new/revised regulation, policies, and guidance for compliance with the Executive Order 13690.

On August 15, 2017, an Executive Order was signed revoking Executive Order 13690 in its entirety. Therefore, the project will continue to be compliant with FHWA regulations contained in 23 CFR 650A, "Location and Hydraulic Design of Encroachments on Flood Plains." These regulations are the FHWA's current method for implementing the Executive Order 11988, which relates to Floodplain Management.

Local Regulations

Merced County Storm Water Management Program

The Merced County Storm Water Management Program (SWMP) was developed to limit the discharge of pollutants from the Merced Storm Water Group (MSWG) storm sewer system. The MSWG is a coalition of municipalities acting as co-permittees consisting of the City of Atwater, City of Merced, the County, and the Merced Irrigation District. For the County, the SWMP includes a public outreach program, an illicit discharge detection and elimination program, a construction site storm water runoff control program, a post-maintenance storm water management in new development and redevelopment program, and a pollution prevention/good housekeeping for municipal operations program.

Merced County General Plan

The County's General Plan contains the County's goals and desires concerning land use and is designed to serve as the basis for development decisions. The following goals and policies from the County's General Plan, Water Element are applicable to the project:

- Goal W-2: Protect the quality of surface and groundwater resources to meet the needs of all users.
- Policy W-2-2: Prepare updated development regulations, such as BMPs, that prevent adverse effects on water resources from construction and development activities.
- Policy W-2-7: Monitor and enforce provisions of the U.S. Environmental Protection Agency NPDES program to control non-point source water pollution.
- Policy W-2-8: Coordinate with the State Water Resources Control Board, RWQCB, and other responsible agencies to ensure that sources of water contamination (including boron, salt, selenium and other trace element concentrations) do not enter agricultural or domestic water supplies, and will be reduced where water quality is already affected.

Design Standards

Central Valley Flood Protection Board Standards

Streams regulated by the Central Valley Flood Protection Board (CVFPB) must adhere to the design criteria from Title 23 of the California Code of Regulations. Portions of the maintenance areas are within the jurisdiction of the CVFPB. CVFPB's maintains non-permissible work periods during the flood season from November 1 through April 15.

Affected Environment

Merced County is home to three watershed subbasins. The Middle San Joaquin-Lower Chowchilla, the Middle San Joaquin-Lower Merced- Lower Stanislaus, and the Upper Merced watershed. The majority of the county is comprised of the Middle San Joaquin-Lower Chowchilla, while the north-eastern region contains the Upper Merced, and the most northern region contains a small portion of the Middle San Joaquin-Lower Merced- Lower Stanislaus. For more in-depth information about the streams and channels designated under this maintenance program, please reference the project description.

Environmental Consequences

Would the project:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion a): Water quality standards are provisions approved by the U.S. EPA that describe the desired condition of a water body. These standards define the designated uses of the water body (e.g., recreation, public drinking water supply), and establish criteria to protect designated uses (e.g., maximum pollutant concentration levels permitted in a water body), antidegradation requirements to protect existing uses and high quality waters, and general policies to address implementation issues (U.S. Environmental Protection Agency, 2017).

The project would not involve the input of pollutants or other debris into the stream. Maintenance activities aim to remove and reduce stream obstructions such as vegetation, excessive sediment, and other debris. These activities would have no negative impacts on water quality within project sites and would likely improve water quality by reducing turbidity. As such, the project would not leave a significant impact on water quality. Therefore, impacts would be less than significant.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion b): The project would not affect ground water supply or ground water recharge because project activities would not include changes to permeable surfaces or the use of water during or after maintenance activities. Therefore, there would be no impact to ground water supplies.

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

i) result in substantial erosion or siltation on- or off-site;

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c), i): Project activities aim to reduce the amount of erosion and siltation by removing vegetation, debris, and waste that could restrict stream flow. Project activities would not alter the course of a stream or adjust existing drainage patterns. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c), ii): The project would not alter existing drainage patterns; but would instead, reduce channel obstructions and maintain channel flow capacity to avoid the potential flooding. In addition, there would be no increase to impervious surfaces that could increase runoff. As such, the project would not cause any changes to surface runoff patterns. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c), iii): Project activities would not increase the square footage of impermeable surfaces that could cause additional runoff. As such, the project would not contribute to runoff water. Therefore, there would be no impact.

iv) Impede or redirect flood flows?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c), iv): The project would not result in the impediment or redirection of flood flows. As described in Section 8, Project description, project activities would serve to maintain existing

drainage patterns and reduce risk of flooding caused by obstructions. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion d): A seiche is an oscillation of a land-locked water body, such as a lake or dam. Merced County flood control channels and surrounding laterals and swales are not land-locked bodies of water and are not at risk of a seiche hazard. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion e): With the implementation of the outlined avoidance measures and biological avoidance measure B-26, the project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, there would be no impact.

Avoidance

- Staging areas will be outside the creek to reduce direct and indirect impacts.
- Measures will be implemented during project activities to minimize the potential for dust and debris to fall into water channels, or otherwise leave the project site.
- Prevent earth or organic material from being deposited or placed where it may directly be carried into a river, marsh, slough, lagoon, or body of standing water.
- When possible, project work shall be limited to periods when there is no or low streamflow.

11. Land Use and Planning

Regulatory Setting

State Regulations

California Government Code Section 65300, et seq. establishes the obligation of cities and counties to adopt and implement general plans. The general plan is a comprehensive, long-term, and general document that describes plans for the physical development of a city or county and of any land outside its boundaries that, in the city's or county's judgment, bears relation to its planning. The general plan addresses a broad range of topics, including at a minimum land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the city's or county's vision for the area.

The State Zoning Law (California Government Code Section 65800, et seq.) establishes that zoning ordinances, which are laws that define allowable land uses within a specific zone district, are required to be consistent with the general plan.

Local Regulations

Merced County 2030 General Plan

The General Plan Land Use Element includes land use standards, goals, and policies that are designed to maintain a healthy balance of competing land uses within Merced County. Land Use goals and policies related to the project are described below.

- Policy HS-2.14: Multi-Purpose Flood Control Projects. Encourage multi-purpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes.
- Policy HS-2.15: Flood Control Design. Encourage flood control designs that respect the natural topography and vegetation of waterways while retaining dynamic flow and functional integrity.

Affected Environment

All potential project sites are found along and within streams, creeks and other water channels within various locations in Merced County. Project sites are found within urban and rural areas; however, most of the locations are found in rural agricultural regions.

Please reference section II. 9. For more detailed discussion on existing land use in and surrounding the project area.

Environmental Consequences

Would the project:

a) Physically divide an established community?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☐ Less Than Significant Impact ☒ No Impact

Discussion a): The project aims to maintain stream banks and channels within Merced County. All maintenance activities would be temporary and aimed at preserving public safety through flood control methods such as vegetation and sediment removal. All activities would occur within the creek or stream and no construction of new structures would be involved. Therefore, there would be no impact to established communities within Merced County.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☐ Less Than Significant Impact ☒ No Impact

Discussion b): The project aims to uphold the current General Plan by maintaining water channels within the County and reducing unnecessary erosion by the removal of problematic debris and vegetation. As such, the project does not conflict with any land use plan or regulation. Therefore, there would be no impact.

12. Mineral Resources

Regulatory Setting

The County's General Plan contains the County's goals and desires concerning mineral resources and is designed to serve as the basis for development decisions. The following goals and policies from the County's General Plan, Soil and Mineral Resources Section are applicable to the project:

- Policy NR-3.12: Sand and Gravel Extraction Control (RDR) Ensure that strict control is maintained on sand and gravel extractions in streambed channels and within areas designated as having sensitive habitat and open space resources.

Affected Environment

Merced County is rich in nonfuel mineral and soil resources; however, there are very few traditional hard rock mines in operation today (Merced County, 2013b). The County's mineral resources are primarily sand and gravel, which are ample in the County.

Environmental Consequences

Would the project:

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion a): According to the County's General Plan, there is sand and gravel extraction within the county. Proposed maintenance activities would not affect extraction activities within the county. Therefore, there would be no impact to mineral resources.

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion b): See 12, a. Proposed maintenance activities would not affect extraction activities within the county. Therefore, there is no impact to mineral resources.

13. Noise

Regulatory Setting

The following maintenance noise standards are applicable to the project.

Federal Regulations

23 CFR 772 provides procedures for preparing operational and maintenance noise studies and evaluating noise abatement considered for federal and federal-aid highway projects. 23 CFR 772 requires that maintenance noise impacts be identified, but does not specify specific methods or abatement criteria for evaluating maintenance noise.

Local Regulations

Merced County Noise Control Ordinance

The County's Noise Control Ordinance (Merced County Code, Title 10, Public Peace, Morals and Welfare) includes restrictions for the control of noise from non-transportation sources. In accordance with the County's Noise Control Ordinance, noise from maintenance activities between the daytime hours of 7:00 a.m. and 6:00 p.m. are typically exempt from the noise control restrictions. The ordinance also requires that maintenance equipment be properly muffled and maintained.

Merced County 2030 General Plan

- Policy HS-7.7: Noise or Vibration Impacted Residential Area Monitoring. Consider any existing residential area "noise or vibration impacted" if the exposure to exterior noise exceeds the standards shown in Table HS-2 or if groundborne vibration levels exceed 70VdB. Identify and evaluate potential noise or groundborne vibration impacted areas and identify possible means to correct the identified noise/land use incompatibilities.

Affected Environment

Noise emitting locations found within the county are typical to that of any city or agriculture region. Specifically, I-5, various State Routes, railroads, airports, and agriculture operations are the primary source of noise within the County (Merced County, 2013b). The sensitive receptors that could be impacted by the project are likely to be found within the urban, residential portions along creeks and water channels.

Environmental Consequences

Would the project result in:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion a): The project may result in short-term and intermittent increases in noise levels in the immediate area of maintenance. Maintenance noise levels would fluctuate depending on maintenance activity, equipment type, duration of use, and the distance between noise source and receiver. **Table 5** summarizes noise levels produced by maintenance equipment commonly used during landscaping and vegetation control.

Table 5. Equipment Noise

Equipment	Noise level (dBA) at 50 feet
Tractor Mounted Mower	76
Chain saw	85
Weedeater**	84
Power Pruners**	76
Excavator/Slashbuster	85
Backhoe	84
Front End Loader	85

*(California Department of Tranportation, 2013) Note: ** indicates a noise level that was estimated based on similar tools.*

According to the noise levels shown in **Table 5,** maintenance equipment can be expected to generate intermittent noise levels ranging from approximately 76 to 85 dBA L_{max} at 50 feet. Noise produced by maintenance equipment decreases at a rate of about 6 dB per doubling of distance from the source. Depending on the ambient noise levels at sensitive noise receptor locations adjacent to maintenance areas, maintenance-generated noise levels at the nearest residential dwellings could be detectable depending on the distance to the receptor location.

Project sites are various throughout the county. As such, there are homes or other sensitive Nosie receptors that could potentially be impacted by maintenance noise. However, the activities would be intermittent during weekday, daylight hours only. Because impacts would be temporary and limited to daylight hours, the impact to would be minimal. Therefore, impacts would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation ☐ Less Than Significant Impact ☒ No Impact

Discussion b): As stated in the Regulatory Setting, the General Plan mandates that groundbourne vibrations do not exceed 70VbD. However, project activities would not involve any equipment that would cause ground borne vibrations. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c): The project would not place housing or other noise-sensitive uses within two miles of an airport. Therefore, there would be no impact.

Avoidance

If sensitive receptors are found to be present, implement the following noise and vibration control measures:

- Project activity noise impacts will be controlled through the use of vehicle and equipment mufflers.

- Work will be conducted in accordance with the Merced County Municipal Code and will only be conducted during daylight hours. No work will be performed on holidays near residential areas without written approval by the head engineer.

- All stationary noise-generating equipment (e.g. air compressors or portable power generators) shall be located as far as practical from existing residences.

14. Population and Housing

Regulatory Setting

No federal, state or local plans, policies, regulations, or laws related to population and housing are applicable to the project.

Affected Environment

Several residential and agricultural properties surround the multiple project areas and adjacent roadways. The majority of residences lie within 0.5 mile of Black Rascal Creek and Bear Creek, which run right through the City of Merced. All properties are accessible by major arterials, minor collectors, and individual driveways. Most of the properties surrounding the project area are single-family residential units.

Environmental Consequences

Would the project:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion a): The maintenance operations on these streams would not involve work on any roads or in any neighborhood. The maintenance of the streams within the project area would not contribute to population growth because it would not involve construction of new residences or businesses. Therefore, the project would not induce population growth in the area, and there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion b): The project would only include maintenance on the streams and would not require the displacement of housing. Therefore, there would be no impact.

15. Public Services

Regulatory Setting

Several goals and policies are identified in the General Plan that pertain to public services that serve the project area (Merced County, 2013). The following goals and policies are related to the project.

- Goal PFS-7 Provide adequate fire and emergency medical facilities and services to protect County residents from injury and loss of life, and to protect property from fire.

Affected Environment

The project area is in both an urban and rural area of Merced County. Emergency services that service the project area include:

- Fire Protection:
  - City of Merced Fire Station #55, 3520 Parsons Ave, Merced, CA 95340
  - Merced County Fire Department 3360 McKee Rd, Merced, CA 95340
  - City of Merced Fire Station #53, 800 Loughborough Dr, Merced, CA 95348
  - City of Merced Fire Station #54, 1425 E. 21st St, Merced, CA 95340
  - Merced County Fire Department, 735 Martin Luther King Jr Way, Merced, CA 95341
  - Franklin/Beachwood/McSwain Fire Station 61, 961 Gurr Rd, Merced, CA 95341
  - Merced County Fire Station 62, 3405 Hardstand Ave, Atwater, CA 95301
  - Merced County Fire Department, 9234 Broadway, Planada, CA 95365
  - Merced County Fire Department, 3875 S. Santa Fe Ave, Le Grand, CA 95333
  - Los Banos City Fire Station, 333 7th Street, Los Banos, CA 93635
- Police Protection:
  - Merced County Sheriff's Department, 700 W 22nd St, Merced, CA 95340.
  - Merced Police Department, 470 W 11th Street, Merced, CA 95341
  - Merced Police Department, 611 W 22nd Street, Merced, CA 95340
- Schools within a 0.5-mile radius of the project (Merced County Office of Education, 2018).
  - Merced Community College District, 3600M Street, Merced, CA 95348
  - Planada Elementary School District, 9722 Haskell Avenue, Planada, CA 95365

Environmental Consequences

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the maintenance 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:

i) Fire protection?

ii) Police protection?

iii) Schools?

iv) Parks?

v) Other public facilities?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion a), i) – a), v): The project would be removing trash, debris, and dead vegetation from the affected channels; as such, the project would not result in population growth that would require the need for additional fire protection services, police protection services, schools, parks, or other public facilities or governmental services. The maintenance of these streams would improve quality of the streams throughout the county; therefore, there would be no impact.

16. Recreation

Regulatory Setting

No federal or state plans, policies, regulations, or laws related to recreation are applicable to the project.

Affected Environment

The project area is in both urban and rural areas of Merced County. Regional and community parks found within 2 miles of the project are listed below (Merced County, 2018).

- Applegate Park
- Lake Yosemite Park
- Courthouse Park

Environmental Consequences

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion a): The project would not induce population growth or increase access to existing recreational resources. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion b): Though there are potential maintenance sites located within a 2-mile buffer to the above-mentioned parks/recreational facilities, the project would not include the maintenance or expansion of existing recreational facilities. Because the project would not result in population growth that would increase demand for additional recreational facilities, there would be no impact.

17. Transportation

Regulatory Setting

No federal or state plans, policies, regulations, or laws related to recreation are applicable to the project.

Affected Environment

The project areas are located in both urban and rural areas of Merced County, particularly in the northeastern portion of the county. The project area streams cover a total of approximately 139 miles, combined. Multiple bridges and roads cross over the streams.

Environmental Consequences

Would the project:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion a): The maintenance for this project would occur in the streams and would not result in impacts to roads in the project area. While the project area is within or adjacent to highways and freeways, it would run underneath these roads and would not affect traffic operation on the road surface. Therefore, there would be no impacts, as no form of transportation would be affected by the maintenance of these streams.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion b): The project would not affect existing congestion management measures employed by Merced County Association of Governments because it would involve maintenance of a stream and would not affect any roads throughout the project area. The project would not increase or decrease capacity of any existing roadway or bridge within or adjacent to the project area; therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c): The project would not involve maintenance or construction of roads. Therefore, the project would not increase hazards, and there would be no, impact.

d) Result in inadequate emergency access?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion d): The project would not affect any roads or emergency access routes and, therefore, would have no impact on emergency service access.

18. Tribal Cultural Resources

Regulatory Setting

CEQA established statutory requirements for establishing the significance of "tribal cultural resources" in PRC Section § 21080.3.1 and Chapter 532 Statutes of 2014. As defined by PRC § 21074, a tribal cultural resource (TCR) is either of the following:

1. Sites, features, places cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either included in the state register of historical resources or a local register of historical resources, or that are determined to be eligible for inclusion in the state register; or

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant based on the criteria for listing in the state register. Lead agencies must consider the significance of a resource to a California Native American tribe in making this determination.

Effective July 1, 2015, CEQA was revised to include early consultation with California Native American tribes and consideration of TCRs. These changes were enacted through Assembly Bill 52 (AB 52). By including TCRs early in the CEQA process, AB 52 intends to ensure that California Native American tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to TCRs. CEQA now establishes that a "project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment" (PRC § 21084.2). To help determine whether a project may have such an adverse effect, the PRC requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. The consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project (PRC § 21080.3.1). Consultation must consist of the lead agency providing formal notification, in writing, to the tribes that have requested notification of proposed projects within their traditionally and culturally affiliated area. AB 52 stipulates that the Native American Heritage Commission (NAHC) shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated within the project area. If the tribe wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. Once the lead agency receives the tribe's request to consult, the lead agency must then begin the consultation process within 30 days.

If a lead agency determines that a project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact. Consultation concludes when either:

1. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR, or
2. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC § 21080.3.2).

Under existing law, environmental documents must not include information about the locations of an archaeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records act. TCRs are also exempt from disclosure.

Affected Environment

The majority of the Project is located in the San Joaquin portion of the Central Valley while the eastern portion includes the Sierra Nevada foothills. As the Project consists of maintenance activities to and within existing stream corridors, bridges, and culverts, the Project Area Limits (PAL) would consist of the physical boundaries of these water and transportation conveyance features, as identified in **Figure 4.**

The PAL is centered on waterways within Merced County which have long attracted human settlement in both prehistoric and historic time periods. Waterways often consist of a myriad of tributaries feeding into major rivers, creating areas exploited for their vast and diverse food resources, fresh drinking water, agricultural potential, travel, and transportation/movement of goods. As waterways provided many resources and opportunities, Native American cultural resources are found through the PAL vicinity and include the following:

- Prehistoric pottery scatters
- Prehistoric habitation sites
- Stone tool production, including both flaked and ground tools;
- Burials
- Food/resource gathering areas

As this Project consists of a routine maintenance program implemented within several creeks and streams throughout Merced County, a cultural sensitivity model was developed to determine which areas of the Project area had a high sensitivity for cultural resources and would require archaeological survey and resource assessment prior to implementation of any routine maintenance activities to determine if a TCR is present and would be adversely affected. Cultural resource sensitivity designation is based on the data collected at the Central California Information Center and the types of routine maintenance activities proposed.

The results of the cultural resource sensitivity are included in Section V "Cultural Resources" of this document. Please review this section for more detailed information. In summary, three activity categories have been designated for the PAL which detail whether archaeological and/or architectural survey and eligibility assessment is needed prior to implementation of routine maintenance work - ***Category A***, ***Category B***.

Category A

Routine maintenance areas which have not been previously surveyed and/or which are situated near recorded archaeological resources are designated as having *moderate to high* cultural sensitivity, and are classified as ***Category A***. In ***Category A*** designated areas, archaeological survey, eligibility assessment, and mitigation, if appropriate, must occur prior to Below Ground Maintenance. Please see **Figure 3** (see Section V) and **Table 3** (see Section V) for more information on the category and locations within the Project.

Category B

Areas which have been surveyed and which do not have any recorded historic resources or archaeological resources, have been determined as having *low to very low* cultural sensitivity, and are classified as ***Category B***. Additionally, stream sections that are concrete lined have been categorized as ***Category B*** as the removal of sediment and other activities within these channels have little to no likelihood to adversely impact historical resources. For routine maintenance areas classified as ***Category B*****,** both Above Ground and Below Ground Maintenance Activities are permitted without archaeological survey prior to project implementation. Please see **Figure 3** (see Section V) and **Table 3** (see Section V) **for** more information on the category and locations within the Project.

Environmental Consequences

Would the project:

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

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

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion a), i): The project is not anticipated to cause a substantial adverse change in the significance of a Tribal Cultural Resource (TCR) listed or eligible for listing in the California Register, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k) with the implementation of mitigation measures.

No TCR has been identified within the PAL; however, with any project requiring ground disturbance, there is always the possibility that previously unknown cultural resources may be unearthed during construction. This impact would be considered potentially significant. Implementation of measures CR-1, CR-2, CR-3, and CR-5 (included in Section V "Cultural Resources" of this document) would reduce the potential impact to Less than Significant Impact with Mitigation Incorporated.

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

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion a), ii): The project is not anticipated to cause a substantial adverse change to a TRC pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. As stated in response XVII.a(i), no TCRs have been identified within the project area; however, with any project requiring ground disturbance, there is the possibility that previously unknown cultural resources may be unearthed during construction. Implementation of measures CR-1, CR-2, CR-3, and CR-5 (included in Section V "Cultural Resources" of this document) would reduce the potential impact to Less than Significant Impact with Mitigation Incorporated.

19. Utilities and Service Systems

Regulatory Setting

Privately owned companies that provide electricity, natural gas, water and sewer, and telephone services are regulated by the California Public Utilities Commission (CPUC). The CPUC is available to help resolve disputes and work through issues unresolvable through the service provider. Publicly owned utilities, such as the Sacramento Municipal Utility District (SMUD) and the Los Angeles Department of Water and Power (LADWP), and cable television and Internet services, are not regulated by the CPUC.

Affected Environment

Electrical and communication utilities currently exist in the project areas. Overhead electric facilities and powerlines run adjacent to and cross at various locations along the streams and channels in the project area. The biggest portion of electrical and communication utilities can be found in the City of Merced. These include City of Merced Utilities and various cable television, internet, and phone services. The City of Atwater and the City of Planada have their own independent utility services.

Environmental Consequences

Would the project:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion a): The project would not induce population growth or generate additional water or wastewater needs that would result in the maintenance of new or expanded water or wastewater treatment facilities. Therefore, the project would not result in impacts on water or wastewater treatment facilities.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion b): The project would not induce population growth or require any water supplies for operation; therefore, the project would not result in any impacts on water supplies.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c): The project would not induce population growth or require any water supplies for operation; therefore, the project would not result in any impacts on water demand.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion d): Operation of the project would not result in the generation of solid waste or require the need for solid waste disposal. Maintenance of these streams would include removal of existing vegetation, trash, debris, and sediments, which would generate small amounts of solid waste. The solid waste generated during project maintenance could be accommodated by existing nearby landfills. Therefore, impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion e): Solid waste generated by project maintenance and maintenance would be disposed of in compliance with federal, state, and local statutes and regulations; therefore, there would be no impact.

20. Wildfire

Affected Environment

Merced County contains an estimated 35% of State Responsibility area, which is defined as an area that the State had the primary responsibility for the prevention and suppression of wildland fires (California Board of Forestry and Fire Protection 2010). The north-eastern portion of the county is identified as a moderate fire severity zone and the south-western portion of the county contains moderate and high fire severity zones (Calfire, 2007).

Environmental Consequences

If located in or near state responsibility areas or lands classified as very high fire hazard severity zone, would the project:

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion a): The project would not interfere with an adopted emergency response plan or emergency evacuation plan because project activities would not occur on the public roadway. As such, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion b): Project sites are found in urban and rural areas; however, most of the sites are found in rural agricultural regions. Project sites consist of riparian scrub, freshwater vegetation, ruderal, and grassland landscape. The project would not involve changing the existing landscape. As such, there is not a change in risk associated with wildfire landscape. In addition, maintenance staff will be trained to use fire extinguishers in the event of an emergency. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion c): The project does not include the installation of new infrastructure. Therefore, there would be no impact.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☒ No Impact

Discussion d): As discussed in 20. b), the project would not alter the existing landscape. As such, there would be no change in the risk associated with the current landscape. Therefore, there would be no impact.

21. Mandatory Findings of Significance

Environmental Consequences

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

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation	☐ Less Than Significant Impact	☐ No Impact

Discussion a): There is potential for the project to degrade the quality of the environment during maintenance through biological impacts, cultural resources impacts, geology and soils impacts, or impacts to tribal resources. With implementation of avoidance, minimization, and mitigation measures listed in Section 4 Biological Resources, Section 5 Cultural Resources, Section 7 Geology and Soils, Section 17 Tribal Cultural Resources and compliance with regulatory permits, impacts would be less than significant with mitigation.

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)?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion b): All potential project sites are found within several stream locations across the County of Merced. Some project sites are found in urban areas; however, most of the sites are found in rural agricultural regions. The purpose of the Flood Control Maintenance Program is to manage channel capacity and prevent streambank erosion. A query of the CEQAnet environmental database was conducted for projects dating from January 2018 through January 2019 (California Office of Planning and Research, n.d.). Based on this research, a list was compiled of recent and future development projects in Merced County (see **Appendix D**).

As shown in **Appendix D**, 127 projects are currently or have recently been under environmental review in Merced County. These projects vary from residential, industrial, transportation, habitat restoration, and infrastructure projects in various locations within the county. None of these projects are directly adjacent to the project area. As described in this IS/MND, the project would not result in any individually significant impacts that cannot be mitigated to a less than significant level. Current and future projects in the project vicinity would be expected to implement similar measures.

Project impacts would be minimal and would not make a cumulatively considerable contribution to a cumulative impact. Considering Biological resources, the project would not contribute to any cumulative permanent loss of habitat because the project would be temporary and would not alter the use of the land. Furthermore, extensive mitigation measures are included in the proposed project to minimize the temporary impacts on biological resources to the maximum extent feasible. Similarly, mitigation measures are included to avoid or reduce impacts on cultural resources. As such, with avoidance and mitigation measures, the project would not contribute substantially to any cumulative impacts on biological or cultural resources. Therefore, when viewed in connection with other planned projects, the project's contribution to cumulative impacts would be less than significant.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation	☒ Less Than Significant Impact	☐ No Impact

Discussion c): The project, and thus, implementation of the Streams Group Flood Control Channel Maintenance Program would improve public safety. Implementation of the project could result in Cultural Resource and Tribal Cultural Resource impacts; however, with implementation of measures listed in Section 5 Cultural Resources and 17 Tribal Cultural Resources, the project would not result in substantial adverse impacts on human beings, either directly or indirectly, and impacts would be less than significant.

RESPONSE TO COMMENTS ON DRAFT IS/MND

Following completion of the Draft IS/MND, the County will make the Draft IS/MND available to the public for a 30-day review period. The Final IS/MND will incorporate responses to comments that were received from the community during the public review period.

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APPENDIX A: UNITED STATES FISH AND WILDLIFE SERVICE, NATIONAL MARINE FISHERIES SERVICE, AND CALIFORNIA NATURAL DIVERSITY DATABASE LISTS

United States Department of the Interior

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

In Reply Refer To: February 27, 2019
Consultation Code: 08ESMF00-2019-SLI-1176
Event Code: 08ESMF00-2019-E-03715
Project Name: County of Merced Streams Group Flood Control Channel Maintenance Program

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
(805) 644-1766

Project Summary

Consultation Code: 08ESMF00-2019-SLI-1176

Event Code: 08ESMF00-2019-E-03715

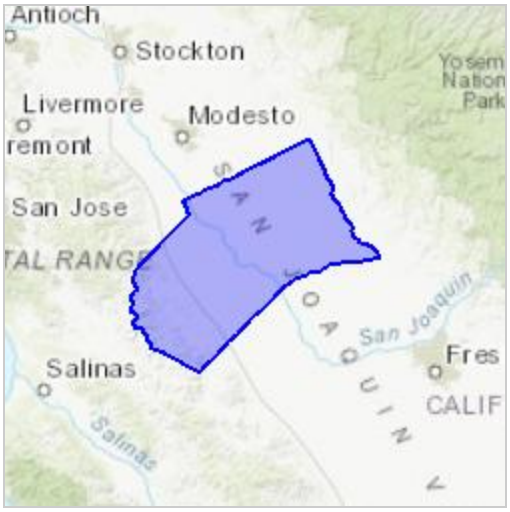
Project Name: County of Merced Streams Group Flood Control Channel Maintenance Program

Project Type: ** OTHER **

Project Description: The proposed project is the continued implementation of the flood control maintenance program and incidental routine activities for water conveyance in natural streams that has been employed in Merced County. The County of Merced Streams Group defines ‘project’ as maintenance activities that occur within the stream channel in diverse locations in the County of Merced. The Flood Control Channel Maintenance Program involves the maintenance of a number of flood control channels in eastern Merced County and one channel in western Merced County to provide adequate capacity for conveyance of specified flood flows.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.18585864576858N120.60935743751023W



Counties: Merced, CA

Endangered Species Act Species

There is a total of 21 threatened, endangered, or candidate species on this species list.

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

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

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

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

Mammals

NAME	STATUS
Fresno Kangaroo Rat *Dipodomys nitratoides exilis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5150 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf	Endangered
Giant Kangaroo Rat *Dipodomys ingens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered

Reptiles

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

Amphibians

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

Fishes

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

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Colusa Grass *Neostapfia colusana* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5690	Threatened
Fleshy Owl's-clover *Castilleja campestris ssp. succulenta* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8095	Threatened
Greene's Tuctoria *Tuctoria greenei* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1573	Endangered
Hairy Orcutt Grass *Orcuttia pilosa* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2262	Endangered
Hartweg's Golden Sunburst *Pseudobahia bahiifolia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1704	Endangered
Hoover's Spurge *Chamaesyce hooveri* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3019	Threatened
Keck's Checker-mallow *Sidalcea keckii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5704	Endangered
San Joaquin Orcutt Grass *Orcuttia inaequalis* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5506	Threatened

Critical habitats

There are 12 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
California Red-legged Frog *Rana draytonii* https://ecos.fws.gov/ecp/species/2891#crithab	Final
California Tiger Salamander *Ambystoma californiense* https://ecos.fws.gov/ecp/species/2076#crithab	Final
Colusa Grass *Neostapfia colusana* https://ecos.fws.gov/ecp/species/5690#crithab	Final
Conservancy Fairy Shrimp *Branchinecta conservatio* https://ecos.fws.gov/ecp/species/8246#crithab	Final
Fleshy Owl's-clover *Castilleja campestris ssp. succulenta* https://ecos.fws.gov/ecp/species/8095#crithab	Final
Greene's Tuctoria *Tuctoria greenei* https://ecos.fws.gov/ecp/species/1573#crithab	Final
Hairy Orcutt Grass *Orcuttia pilosa* https://ecos.fws.gov/ecp/species/2262#crithab	Final
Hoover's Spurge *Chamaesyce hooveri* https://ecos.fws.gov/ecp/species/3019#crithab	Final
Longhorn Fairy Shrimp *Branchinecta longiantenna* For information on why this critical habitat appears for your project, even though Longhorn Fairy Shrimp is not on the list of potentially affected species at this location, contact the local field office. https://ecos.fws.gov/ecp/species/4294#crithab	Final
San Joaquin Orcutt Grass *Orcuttia inaequalis* https://ecos.fws.gov/ecp/species/5506#crithab	Final
Vernal Pool Fairy Shrimp *Branchinecta lynchi* https://ecos.fws.gov/ecp/species/498#crithab	Final
Vernal Pool Tadpole Shrimp *Lepidurus packardi* https://ecos.fws.gov/ecp/species/2246#crithab	Final

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
Phone: (805) 644-1766 Fax: (805) 644-3958

In Reply Refer To: February 27, 2019
Consultation Code: 08EVEN00-2019-SLI-0331
Event Code: 08EVEN00-2019-E-00741
Project Name: County of Merced Streams Group Flood Control Channel Maintenance Program

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

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a

written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Ventura Fish And Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003-7726
(805) 644-1766

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

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

Project Summary

Consultation Code: 08EVEN00-2019-SLI-0331

Event Code: 08EVEN00-2019-E-00741

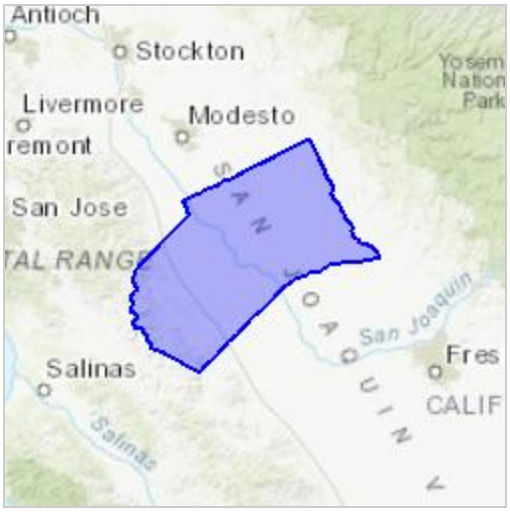
Project Name: County of Merced Streams Group Flood Control Channel Maintenance Program

Project Type: ** OTHER **

Project Description: The proposed project is the continued implementation of the flood control maintenance program and incidental routine activities for water conveyance in natural streams that has been employed in Merced County. The County of Merced Streams Group defines 'project' as maintenance activities that occur within the stream channel in diverse locations in the County of Merced. The Flood Control Channel Maintenance Program involves the maintenance of a number of flood control channels in eastern Merced County and one channel in western Merced County to provide adequate capacity for conveyance of specified flood flows.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.18585864576858N120.60935743751023W



Counties: Merced, CA

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

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

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

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

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

Mammals

NAME	STATUS
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened

Critical habitats

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

Angela Scudiere

From: Angela Scudiere
Sent: Wednesday, February 27, 2019 9:44 AM
To: 'nmfswcrca.specieslist@noaa.gov'
Subject: County of Merced Streams Group Flood Control Channel Maintenance Program

- **Non-federal Agency Name and Address**
- County of Merced
- 715 Martin Luther King Jr. Way
- Merced, CA 95341
-
- **Point-of-contact Name and Contact Information**
- GPA Consulting
- Attn: Angela Scudiere
- 2600 Capitol Ave, Suite 100
- Sacramento, CA 95816
- angela@gpaconsulting-us.com
- (310) 792-2690

Search results:

X = Present on the Quadrangle		ESA Anadromous Fish					ESA Anadromous Fish Critical Habitat					Essential Fish Habitat	
		STEELHEAD					STEELHEAD					SALMON	
Quad Name	Quad Number	NC (T)	CCC (T)	SCCC (T)	SC (E)	CCV (T)	NC	CCC	SCCC	SC	CCV	Coho	Chinook
Arena	37120-C6					X							X
Atwater	37120-C5					X							X
Bliss Ranch	37120-A4					X							X
Charleston School	36120-H7					X							

Cressey	37120-D6					X					X		X
Crevison Peak	37121-B2			X		X							
Delta Ranch	37120-A6					X							X
Dos Palos	36120-H6					X							
El Nido	37120-B4					X							X
Gustine	37120-C8					X					X		X
Hatch	37120-D8					X					X		X
Haystack Mountain	37120-D3					X							X
Howard Ranch	37121-B1					X							
Ingomar	37120-B8					X							
Laguna Seca Ranch	36120-G7					X							
Le Grand	37120-B2					X							X
Los Banos	37120-A7					X							
Los Banos Valley	36121-H1					X							
Mariposa Peak	36121-H2			X		X			X				
Merced	37120-C4					X							X
Merced Falls	37120-E3					X					X		X
Montpelier	37120-E6					X							X
Ortigalita Peak	36120-G8			X		X							
Ortigalita Peak NW	36120-H8					X							
Owens Reservoir	37120-C2					X							X
Oxalis	36120-H5					X							X
Pacheco Pass	37121-A2			X		X							
Plainsburg	37120-B3					X							X
Planada	37120-C3					X							X
Quien Sabe Valley	36121-G2			X		X							
Raynor Creek	37120-B1					X							X
Ruby Canyon	36121-G1			X		X							
San Luis Dam	37121-A1					X							
San Luis Ranch	37120-B7					X							X
Sandy Mush	37120-B5					X							X
Santa Rita Bridge	37120-A5					X							X
Snelling	37120-E4					X					X		X

Stevinson	37120-C7					X					X		X
Turlock	37120-D7					X					X		X
Turlock Lake	37120-E5					X							X
Turner Ranch	37120-B6					X							X
Volta	37120-A8					X							
Winton	37120-D5					X					X		X
Yosemite Lake	37120-D4					X					X		X

CONSULTING GPA

ANGELA SCUDIERE
Senior Biologist | angela@gpaconsulting-us.com
2600 Capitol Avenue, Suite 100
Sacramento, CA 95816
(310) 792-2690
www.gpaconsulting-us.com
El Segundo • Los Angeles
Sacramento • San Luis Obispo

Angela Scudiere

From: NMFSWCRCA Specieslist - NOAA Service Account <nmfswcrca.specieslist+canned.response@noaa.gov>
Sent: Wednesday, February 27, 2019 9:44 AM
To: Angela Scudiere
Subject: Re: County of Merced Streams Group Flood Control Channel Maintenance Program

Receipt of this message confirms that NMFS has received your email to nmfswcrca.specieslist@noaa.gov. If you are a federal agency (or representative) and have followed the steps outlined on the California Species List Tools web page (http://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html), you have generated an official Endangered Species Act species list.

Messages sent to this email address are not responded to directly. For project specific questions, please contact your local NMFS office.

Northern California/Klamath (Arcata) 707-822-7201

North-Central Coast (Santa Rosa) 707-387-0737

Southern California (Long Beach) 562-980-4000

California Central Valley (Sacramento) 916-930-3600

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: County IS (Merced)

County of Merced Operations and Maintenance

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
Agrostis hendersonii Henderson's bent grass	PMPOA040K0	None	None	G2Q	S2	3.2
Alkali Seep Alkali Seep	CTT45320CA	None	None	G3	S2.1	
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Ammospermophilus nelsoni Nelson's antelope squirrel	AMAFB04040	None	Threatened	G2	S2S3	
Anniella pulchra northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex cordulata var. cordulata heartscale	PDCHE040B0	None	None	G3T2	S2	1B.2
Atriplex coronata var. vallicola Lost Hills crownscale	PDCHE04250	None	None	G4T2	S2	1B.2
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
Atriplex minuscula lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
Atriplex persistens vernal pool smallscale	PDCHE042P0	None	None	G2	S2	1B.2
Atriplex subtilis subtle orache	PDCHE042T0	None	None	G1	S1	1B.2
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Branchinecta longiantenna longhorn fairy shrimp	ICBRA03020	Endangered	None	G1	S1S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Branta hutchinsii leucopareia cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	G5T3	S3	
Brasenia schreberi watershield	PDCAB01010	None	None	G5	S3	2B.3
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calycadenia hooveri Hoover's calycadenia	PDAST1P040	None	None	G2	S2	1B.3
Campanula exigua chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
Castilleja campestris var. succulenta succulent owl's-clover	PDSCR0D3Z1	Threatened	Endangered	G4?T2T3	S2S3	1B.2
Caulanthus lemmonii Lemmon's jewelflower	PDBRA0M0E0	None	None	G3	S3	1B.2
Charadrius montanus mountain plover	ABNNB03100	None	None	G3	S2S3	SSC
Chloropyron molle ssp. hispidum hispid salty bird's-beak	PDSCR0J0D1	None	None	G2T1	S1	1B.1
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Cismontane Alkali Marsh Cismontane Alkali Marsh	CTT52310CA	None	None	G1	S1.1	
Clarkia rostrata beaked clarkia	PDONA050Y0	None	None	G2G3	S2S3	1B.3
Coastal and Valley Freshwater Marsh Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Cuscuta obtusiflora var. glandulosa Peruvian dodder	PDCUS01111	None	None	G5T4?	SH	2B.2
Delphinium californicum ssp. interius Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Dipodomys heermanni dixoni Merced kangaroo rat	AMAFD03062	None	None	G3G4T2T3	S2S3	
Dipodomys ingens giant kangaroo rat	AMAFD03080	Endangered	Endangered	G1G2	S1S2	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Entosphenus hubbsi Kern brook lamprey	AFBAA02040	None	None	G1G2	S1S2	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eryngium racemosum Delta button-celery	PDAPI0Z0S0	None	Endangered	G1	S1	1B.1
Eryngium spinosepalum spiny-sepaled button-celery	PDAPI0Z0Y0	None	None	G2	S2	1B.2
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Euphorbia hooveri Hoover's spurge	PDEUP0D150	Threatened	None	G1	S1	1B.2
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Gambelia sila blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S1	FP
Gratiola heterosepala Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
Great Valley Cottonwood Riparian Forest Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Lagophylla dichotoma forked hare-leaf	PDAST5J070	None	None	G2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasiurus blossevillii western red bat	AMACC05060	None	None	G5	S3	SSC
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4	
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Layia munzii Munz's tidy-tips	PDAST5N0B0	None	None	G2	S2	1B.2
Lepidium jaredii ssp. album Panoche pepper-grass	PDBRA1M0G2	None	None	G2G3T2T3	S2S3	1B.2
Lepidium latipes var. heckardii Heckard's pepper-grass	PDBRA1M0K1	None	None	G4T1	S1	1B.2
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Lithobates pipiens northern leopard frog	AAABH01170	None	None	G5	S2	SSC
Lytta molesta molestan blister beetle	IICOL4C030	None	None	G2	S2	
Malacothamnus hallii Hall's bush-mallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
Masticophis flagellum ruddocki San Joaquin coachwhip	ARADB21021	None	None	G5T2T3	S2?	SSC
Monardella leucocephala Merced monardella	PDLAM180C0	None	None	GH	SH	1A
Mylopharodon conocephalus hardhead	AFCJB25010	None	None	G3	S3	SSC
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Navarretia myersii ssp. myersii pincushion navarretia	PDPLM0C0X1	None	None	G2T2	S2	1B.1
Navarretia nigelliformis ssp. radians shining navarretia	PDPLM0C0J2	None	None	G4T2	S2	1B.2
Navarretia prostrata prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.1
Neostapfia colusana Colusa grass	PMPOA4C010	Threatened	Endangered	G1	S1	1B.1
Northern Claypan Vernal Pool Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Orcuttia inaequalis San Joaquin Valley Orcutt grass	PMPOA4G060	Threatened	Endangered	G1	S1	1B.1
Orcuttia pilosa hairy Orcutt grass	PMPOA4G040	Endangered	Endangered	G1	S1	1B.1
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Perognathus inornatus San Joaquin Pocket Mouse	AMAFD01060	None	None	G2G3	S2S3	
Phacelia ciliata var. opaca Merced phacelia	PDHYD0C0S2	None	None	G5TH	SH	3.2
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Potamogeton zosteriformis eel-grass pondweed	PMPOT03160	None	None	G5	S3	2B.2
Pseudobahia bahiifolia Hartweg's golden sunburst	PDAST7P010	Endangered	Endangered	G2	S2	1B.1
Puccinellia simplex California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
Rana boylii foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Sidalcea keckii Keck's checkerbloom	PDMAL110D0	Endangered	None	G2	S2	1B.1
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Streptanthus insignis ssp. lyonii Arburua Ranch jewelflower	PDBRA2G0Q1	None	None	G3G4T2	S2	1B.2
Stuckenia filiformis ssp. alpina slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
Sycamore Alluvial Woodland Sycamore Alluvial Woodland	CTT62100CA	None	None	G1	S1.1	
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Trichocoronis wrightii var. wrightii Wright's trichocoronis	PDAST9F031	None	None	G4T3	S1	2B.1
Tuctoria greenei Greene's tuctoria	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
Valley Sacaton Grassland Valley Sacaton Grassland	CTT42120CA	None	None	G1	S1.1	
Valley Sink Scrub Valley Sink Scrub	CTT36210CA	None	None	G1	S1.1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 112

APPENDIX B: SPECIAL-STATUS COMMUNITIES AND SPECIES WITH POTENTIAL TO BE IN PROJECT ACTIVITY AREAS

Special-Status Natural Communities with Potential to be in the Project Activity Areas

Common and Scientific Names	Status		General Habitat Requirements	Habitat Present/ Absent	Rationale for Species Presence/Absence
	Federal USFWS	State CDFW			
Natural Communities					
Alkali Seep	--	S2.1	Alkali Seep is found on seeps permanently wet or moist with saline water, often associated with Alkali Meadows. This community is characterized by low-growing perennial herbs, usually forming relatively complete cover, growing throughout the year in areas with mild winters.	A	Seeps are not expected to be near MSG-maintained streams; therefore, this community is not expected to be in Project Activity Areas.
Cismontane Alkali Marsh	--	S1.1	Cismontane Alkali Marsh is found on alkaline soils in areas with high water tables. This community is found primarily in disturbed sites. Standing water or saturated soils are present during most or all of the year. High evaporation and low input of fresh water render these marshes somewhat salty, especially during the summer.	A	High saline conditions are not expected to be near MSG-maintained streams; therefore, this community is not expected be in Project Activity Areas.
Great Valley Cottonwood Riparian Forest	--	S2.1	Great Valley Cottonwood Riparian Forest is found on fine-grained alluvial soils near perennial or nearly-perennial streams, providing subsurface irrigation. This community is a dense, broadleafed, winter deciduous riparian forest. Dominant species include Fremont cottonwood (*Populus fremontii*) and San Joaquin willow (*Salix gooddingii variabilis*).	HP	Great Valley Cottonwood Riparian Forests are found near waterways; therefore, there is potential for this community to be near MSG-maintained streams, and in Project Activity Areas.

Northern Claypan Vernal Pool	--	S1.1	Northern Claypan Vernal Pools are found on neutral to alkaline, silica-cemented hardpan soils which are often saline.	A	Vernal pools are not expected to be near MSG-maintained streams; therefore, this community is not expected to be in Project Activity Areas.
Northern Hardpan Vernal Pool	--	S3.1	Northern Hardpan Vernal Pools are found on old, acidic, iron-silica cemented soils including Corning, Redding, and San Joaquin soil series. The topography of this community is characterized by small hills between localized depressions, primarily on old alluvial fans.	A	Vernal pools are not expected to be near MSG-maintained streams; therefore, this community is not expected to be in Project Activity Areas.
Sycamore Alluvial Woodland	--	S1.1	Sycamore Alluvial Woodland habitat exists at the base of flat valleys having deep alluvial gravel, where water from the hills hits the flat valley floor and has an intermittent stream with large seasonal fluctuations in the water table.	HP	Sycamore Alluvial Woodlands are found near waterways; therefore, there is potential for this community to be near MSG-maintained streams, and in Project Activity Areas.
Valley Sacaton Grassland	--	S1.1	Valley Sacaton Grasslands are vast networks of freshwater marshes (permanent and seasonal), alkali grasslands, and riparian thickets. Characteristic species of this habitat include salt grass (*Distichlis spicata*), alkali barley (*Hordeum depressum*), and alkali sacaton (*Sporobolus airoides*).	HP	Valley Sacaton Grasslands are found near waterways; therefore, there is potential for this community to be near MSG-maintained streams, and in Project Activity Areas.
Valley Sink Scrub	--	S1.1	The Valley Sink Scrub community is comprised of low, open to dense succulent shrublands dominated by alkali-tolerant Chenopodiaceae, especially iodine bush (*Allenrolfea occidentalis*) or several seablites (*Sueda* sp.). Understories usually are lacking,	A	High saline conditions are not expected to be near MSG-maintained streams; therefore, this community is not expected be in Project Activity Areas.

			though sparse herbaceous cover dominated by red brome (*Bromus rubens*), develops occasionally. The annuals are most active from January to April; the perennials from March to September. This community requires heavy, saline, and/or alkaline clays of lakebeds or playas, and high ground water supplies that provide capillary water for the perennials.		

Table Key: Merced Streams Group (MSG); Absent [A] – The vegetation community is not expected to be within Project Activity Areas. Habitat Present [HP] – There is habitat present within Project Activity Areas. S1 = Critically Imperiled - extreme rarity (often five or fewer observations) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from California; S2 = Imperiled- rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or California; S3 = Vulnerable- restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

Project Activity Areas = defined as the top of bank to top of bank of any stream associated with MSG maintained streams. The "bank" includes the physical bank of the stream and all associated riparian vegetation.

Information for the habitat requirements was obtained from the following sources: (Holland, 1986; Sawyer, Keeler-Wolf, & Evens, 2009)

Special-Status Plants with Potential to be in the Project Activity Areas

Common and Scientific Names	Status			General Habitat Requirements	Habitat Present/ Absent	Rationale for Species Presence/Absence
	Federal USFWS	State CDFW	CNPS			
Plants						
Acanthomintha lanceolata Santa Clara thorn-mint	--	S4	4.2	The Santa Clara thorn-mint is an annual herb found in rocky areas of chaparral, cismontane woodland, and coastal scrub. This species is often found on serpentine soils. Typical Blooming Period: March to June Typical Elevation Range: 262 to 3,937	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Agrostis hendersonii Henderson's bent grass	--	S2	3.2	The Henderson's bent grass is an annual herb found in mesic valley and foothill grasslands, vernal pools, and wetlands. This species grows in freshwater marsh, marsh and swamp, swamp, and wetland habitats. Typical Blooming Period: April to June Typical Elevation Range: 70 to 1,001 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Allium howellii var. *howellii* Howell's onion	--	S3	4.3	The Howell's onion is a perennial bulbiferous herb found in valley and foothill grassland on clay or serpentine soils. Typical Blooming Period: March to April Typical Elevation Range: 160 to 7,220 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Amsinckia furcata Forked fiddleneck	--	S4	4.2	The forked fiddleneck is an annual herb found in cismontane woodland and valley and foothill grassland habitats.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has

				This species is found on semi-barren, loose, or shale slopes. Typical Blooming Period: March to May Typical Elevation Range: 160 to 3,280 feet		potential to be in Project Activity Areas.
Androsace elongata ssp. *acuta* California androsace	--	S3S4	4.2	The California androsace is an annual herb found on dry, grassy, typically north facing hillsides in chaparral, foothill woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland habitats. Typical Blooming Period: March to June Typical Elevation Range: 492 to 4,281 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Astragalus tener var. *tener* Alkali milk-vetch	--	S2	1B.2	The alkali milk-vetch is an annual herb found in alkaline conditions. The species is found in alkali playas and flats, valley and foothill grassland within adobe clay substrates, vernal pools, and vernally moist meadows. Typical Blooming Period: March to June Typical Elevation Range: three to 551 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Atriplex cordulata var. *cordulata* Heartscale	--	S2	1B.2	The heartscale is an annual herb found in chenopod scrub, valley and foothill grassland, and meadows. This species is in alkaline flats and scalds in the Central Valley on sandy soils. Typical Blooming Period: April to October Typical Elevation Range: zero to 1,837 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

Atriplex coronata var. *coronata* Crownscale	--	S3	4.2	The crownscale is an annual herb found in chenopod scrub, valley and foothill grassland, vernal pools, and wetland on fine, alkaline soils and clay soils. Typical Blooming Period: March to October Typical Elevation Range: three to 1,936 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Atriplex coronata var. *vallicola* Lost hills crownscale	--	S2	1B.2	The lost hills crownscale is an annual herb found in chenopod scrub, valley and foothill grassland, vernal pools, and wetland on fine, vernally moist alkaline soils. This species is often found in association with *Frankenia*, *Distichlis*, and other *Atriplex* species. Typical Blooming Period: April to October Elevation Rane: 164 to 2,083 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Atriplex depressa Brittlescale	--	S2	1B.2	The brittlescale is an annual herb found in alkaline, clay, chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools. Typical Blooming Period: April to October Typical Elevation Range: three to 1,050 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Atriplex minuscula Lesser saltscale	--	S2	1B.1	The lesser saltscale is an annual herb found in chenopod scrub, playas, and valley and foothill grassland. This species is found in alkali sink and grassland habitats on sandy, alkaline soils. Typical Blooming Period: May to	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

				October Typical Elevation Range: zero to 656 feet		
Atriplex persistens Vernal pool smallscale	--	S2	1B.2	The vernal pool smallscale is an annual herb found in alkaline vernal pools. Typical Blooming Period: June to October Typical Elevation Range: zero to 377 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Atriplex subtilis Subtle orache	--	S1	1B.2	The subtle orache is an annual herb found in valley and foothill grassland and grows on alkaline soils. This species is found in saline depressions. Typical Blooming Period: June to October Typical Elevation Range: zero to 328 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Calycadenia hooveri Hoover's calycadenia	--	S2	1B.3	The Hoover's calycadenia is an annual herb found in cismontane woodland and valley and foothill grassland on exposed, rocky, and barren soil. Typical Blooming Period: July to September Typical Elevation Range: 210 to 1,312 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Campanula exigua Chaparral harebell	--	S2	1B.2	The chaparral harebell is an annual herb found on rocky, serpentine surfaces in chaparral habitats. Typical Blooming Period: May to June Typical Elevation Range: 900 to 4,100 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.

Castilleja campestris var. *succulenta* Succulent owl's-clover	FT	SE	1B.2	The succulent owl's-clover is an annual herb found in vernal pools, often acidic. Typical Blooming Period: March to July Typical Elevation Range: zero to 2,461 feet	A/CH	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.
Caulanthus lemmonii Lemmon's jewelflower	--	S3	1B.2	The Lemmon's jewelflower is an annual herb found in pinyon and juniper woodland, valley and foothill grassland, chaparral, and scrub habitats. Typical Blooming Period: March to May Typical Elevation Range: 260 to 5,185 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Centromadia parryi ssp. *rudis* Parry's rough tarplant	--	S3	4.2	The Parry's rough tarplant is an annual herb found in valley and foothill grassland, seeps, vernal pools, and occasionally roadsides. The species grows on alkaline and vernally mesic soils. Typical Blooming Period: May to October Typical Elevation Range: zero to 1,640 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Chloropyron molle ssp. *hispidum* Hispid salty bird's-beak	--	S1	1B.1	The hispid salty bird's-beak is a hemiparasitic annual herb found in saline marshes and flats within meadows and seeps, playas, and valley and foothill grassland. Typical Blooming Period: June to July Typical Elevation Range: zero to 510 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

Clarkia breweri Brewer's clarkia	--	S4	4.2	The Brewer's clarkia is an annual herb found in chaparral, talus, cismontane woodland, and coastal scrub. This species is often found on serpentine soils. Typical Blooming Period: April to June Typical Elevation Range: zero to 3,660 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Clarkia rostrata Beaked clarkia	--	S2S3	1B.3	The beaked clarkia is an annual herb found in cismontane woodland, and valley and foothill grassland. This species is found on north-facing slopes and sometimes on sandstone. Typical Blooming Period: April to May Typical Elevation Range: zero to 1,641 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Convolvulus simulans Small-flowered morning-glory	--	S4	4.2	The small-flowered morning-glory is an annual herb found in chaparral openings, coastal scrub, serpentine seeps, and valley and foothill grassland. This species grows on wet clay or occasionally serpentine soils. The species may be found on serpentine ridges. Typical Blooming Period: March to July Typical Elevation Range: 98 to 2,427 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Cryptantha rattanii Rattan's cryptantha	--	S4	4.3	The Rattan's cryptantha is an annual herb found on rocky, gravelly slopes in cismontane woodland, riparian woodland, coastal scrub, chaparral, and valley and foothill grassland. Typical Blooming Period: April to July	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

				Typical Elevation Range: 492 to 3,000 feet		
Cuscuta obtusiflora var. *glandulosa* Peruvian dodder	--	SH	2B.2	The Peruvian dodder is an annual parasitic vine that is found in freshwater marshes and swamps. This species is thought to be extirpated in California. Typical Blooming Period: July to October Typical Elevation Range: 49 to 787 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Delphinium californicum ssp. *interius* Hospital Canyon larkspur	--	S3	1B.2	The Hospital Canyon larkspur is a perennial herb found in cismontane woodland, chaparral openings, and coastal scrub. This species generally grows on the eastern side of Inner South Coast Range and on slopes in open woodland. Typical Blooming Period: April to June Typical Elevation Range: 640 to 3,595 feet	A	MSG-maintained streams are outside of the known range for this species; therefore, this species is not expected to be in Project Activity Areas.
Delphinium hansenii ssp. *ewanianum* Ewan's larkspur	--	S3	4.2	The Ewan's larkspur is a perennial herb found in cismontane woodland and valley and foothill grassland. This species grows on rocky soils. Typical Blooming Period: March to May Typical Elevation Range: 197 to 1,969 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Delphinium recurvatum Recurved larkspur	--	S2?	1B.2	The recurved larkspur is a perennial herb found in chenopod scrub, valley and foothill grassland, and cismontane woodland. This species grows on poorly drained, fine textured alkaline soils. Typical Blooming Period: March to June Typical Elevation Range: 10 to 2,592	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

				feet		
Downingia pusilla Dwarf downingia	--	S2	2B.2	The dwarf downingia is an annual herb found in valley and foothill grassland (mesic sites), roadside ditches, vernal pools, and wetlands. Typical Blooming Period: March to May Typical Elevation Range: zero to 1,460 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Eriogonum nudum var. *indictum* Protruding buckwheat	--	S4	4.2	The protruding buckwheat is a perennial herb found in chaparral, chenopod scrub, and cismontane woodland on barren slopes. This species is found on clay and serpentine soils. Typical Blooming Period: May to October Typical Elevation Range: 328 to 4,806 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Eriogonum vestitum Idria buckwheat	--	S3	4.3	The Idria buckwheat is an annual herb found in valley and foothill grassland in clay areas. Typical Blooming Period: April to August Typical Elevation Range: 770 to 2,952 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Eriophorum gracile Slender cottongrass	--	S4	4.3	The slender cottongrass is a perennial rhizomatous herb (emergent) found in bogs and fens, meadows and seeps, and upper montane coniferous forests. This species grows on acidic, wet soils. Typical Blooming Period: May to July Typical Elevation Range: 1,968 to 9,514 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.

Eryngium racemosum Delta button-celery	--	SE	1B.1	The delta button-celery is an annual/perennial herb found in riparian scrub. This species is found on clay soils in vernally mesic depressions or seasonally flooded floodplains. Typical Blooming Period: June to October Typical Elevation Range: 10 to 98 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Eryngium spinosepalum Spiny-sepaled button-celery	--	S2	1B.2	The spiny-sepaled button-celery is an annual/perennial herb found in vernal pools and swales within valley and foothill grassland. The species may occasionally be found in wet roadside ditches. Typical Blooming Period: April to July Typical Elevation Range: 262 to 4,167 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Euphorbia hooveri Hoover's spurge	FT	S1	1B.2	The Hoover's spurge is an annual herb found in vernal pools on volcanic mudflow or clay substrate. Typical Blooming Period: July to September Typical Elevation Range: zero to 820 feet	A/CH	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.
Extriplex joaquinana San Joaquin spearscale	--	S2	1B.2	The San Joaquin spearscale is an annual herb found on alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland. This species grows in seasonal alkali wetlands or alkali sink scrub with saltgrass (*Distichlis spicata*), sea heath (*Frankenia* sp.), etc.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

				Typical Blooming Period: April to October Typical Elevation Range: zero to 2,740 feet		
Fritillaria agrestis Stinkbells	--	S3	4.2	The stinkbells is a perennial bulbiferous herb found in cismontane woodland, chaparral, pinyon and juniper woodland, and valley and foothill grassland. This species is found on clay, often vertic soils and occasionally on serpentine soils. Typical Blooming Period: March to June Typical Elevation Range: zero to 5,101 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Gratiola heterosepala Boggs Lake hedge-hyssop	--	SE	1B.2	The Boggs Lake hedge-hyssop is an annual herb found in shallow water, freshwater marshes, swamps, margins of vernal pools, wetlands, and lake margins. This species is found on clay soils. Typical Blooming Period: April to August Typical Elevation Range: zero to 7,792 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Hesperevax caulescens Hogwallow starfish	--	S3	4.2	The hogwallow starfish is an annual herb found in valley and foothill grassland on mesic clay soils and in shallow vernal pools. This species sometimes grows on alkaline soils, serpentine soil on steep slopes, flats, and drying shrink-swell clay of vernal pools. Typical Blooming Period: March to June Typical Elevation Range: zero to 1,657	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

				feet		
Hordeum intercedens Vernal barley	--	S3S4	3.2	The vernal barley is an annual herb found on seasonal and alkaline soils near seasonal flows and vernal pool habitats. This species is found in coastal dunes, coastal scrub, on saline flats and depressions in valley and foothill grassland, saline riverbeds, and vernal pools. Typical Blooming Period: March to June Typical Elevation Range: zero to 3,281 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Iris longipetala Coast iris	--	S3	4.2	The coast iris is a perennial rhizomatous herb found in the North Coast and Outer North Coast ranges, the Central Coast, and San Francisco Bay area in coastal prairies, lower montane coniferous forest, meadows, seeps, and wetlands. This species is found in mesic sites. Typical Blooming Period: March to May Typical Elevation Range: zero to 1,969 feet	A	MSG-maintained streams are outside the known range for this species; therefore, this species is not expected to be in Project Activity Areas.
Juglans hindsii Northern California black walnut	--	S1	1B.1	The northern California black walnut is a perennial deciduous tree found in riparian forest and woodland, often along streams. Typical Blooming Period: April to May Typical Elevation Range: zero to 1,444 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Lagophylla dichotoma Forked hare-leaf	--	S2	1B.1	The forked hare-leaf is an annual herb found in cismontane woodland openings and valley and foothill	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has

				grassland. This species sometimes grows on clay soils. Typical Blooming Period: April to May Typical Elevation Range: 148 to 1,312 feet		potential to be in Project Activity Areas.
Lasthenia ferrisiae Ferris' goldfields	--	S3	4.2	The Ferris' goldfield is an annual herb that is endemic to the California Central Valley. It is found on alkaline, clay soil in vernal pools or wet saline flats. Typical Blooming Period: February to May Typical Elevation Range: zero to 2,297 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	--	S2	1B.1	The Coulter's goldfield is an annual herb found in coastal salt marshes and swamps, playas and vernal pools. Typical Blooming Period: February to June Typical Elevation Range: three to 4,003 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Layia munzii Munz's tidy-tips	--	S2	1B.2	The Munz's tidy-tips is an annual herb found in chenopod scrub, and valley and foothill grassland. This species grows on alkaline clay soils. Typical Blooming Period: March to April Typical Elevation Range: 164 to 2,625 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Lepidium jaredii ssp. *album* Panoche pepper-grass	--	S2S3	1B.2	The panoche pepper-grass is an annual herb found on steep slopes in valley and foothill grasslands. This species grows on clay and gypsum-rich soils, and sometimes on alkaline soils.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

				Typical Blooming Period: February to June Typical Elevation Range: 607 to 2,444 feet		
Lepidium latipes var. *heckardii* Heckard's pepper-grass	--	S1	1B.2	The Heckard's pepper-grass is an annual herb, found in alkaline flats within valley and foothill grassland and sometimes along vernal pool edges. This species grows on alkaline soils. Typical Blooming Period: March to May Typical Elevation Range: seven to 2,293 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Leptosiphon ambiguous Serpentine leptosiphon	--	S4	4.2	The serpentine leptosiphon is an annual herb usually found on serpentine soils in cismontane woodland, coastal scrub, and valley and foothill grassland. Typical Blooming Period: April to May Typical Elevation Range: zero to 3,707 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Leptosiphon grandiflorus Large-flowered leptosiphon	--	S3S4	4.2	The large-flowered leptosiphon is an annual herb usually found on sandy soil along coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, and valley and foothill grassland. Typical Blooming Period: April to July Typical Elevation Range: zero to 4,003 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Malacothamnus hallii Hall's bush-mallow	--	S2	1B.2	The Hall's bush-mallow is a perennial evergreen shrub found in open chaparral and coastal scrub. Some populations are found on serpentine	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in

				soils. Typical Blooming Period: May to July Typical Elevation Range: zero to 2,493 feet		Project Activity Areas.
Microseris sylvatica Sylvan microseris	--	S4	4.2	The sylvan microseris is a perennial herb found in chaparral, cismontane woodland, Great Basin scrub, pinyon and juniper woodland, and valley and foothill grassland. This species is found in serpentine soils. Typical Blooming Period: March to June Typical Elevation Range: zero to 5,577 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Monardella leucocephala Merced monardella	--	SH	1A	The Merced monardella is an annual herb found on sandy soils in valley and foothill grasslands, interior sand dunes, riverbeds, and moist sandy depressions. This species grows on subalkaline sands associated with low elevation grasslands. Typical Blooming Period: May to July Typical Elevation Range: 115 to 328 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Myosurus minimus ssp. *apus* Little mousetail	--	S2	3.1	The little mousetail is an annual herb found on alkaline soils in vernal pools, valley and foothill grassland, and wetlands. Typical Blooming Period: March to June Typical Elevation Range: 66 to 2,100 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Navarretia myersii ssp. *myersii* Pincushion navarretia	--	S2	1B.1	The pincushion navarretia is an annual herb found in vernal pools on often acidic soils.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore,

				Typical Blooming Period: May Typical Elevation Range: 66 to 1,083 feet		this species is not expected to be in Project Activity Areas.
Navarretia nigelliformis ssp. *nigelliformis* Adobe navarretia	--	S4	4.2	The adobe navarretia is an annual herb found in vernally mesic valley and foothill grasslands. This species is sometimes found in vernal pools. The adobe navarretia is found on clay depressions and sometimes serpentine soils. Typical Blooming Period: April to June Typical Elevation Range: 33 to 3,281 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Navarretia nigelliformis ssp. *radians* Shining navarretia	--	S2	1B.2	The shining navarretia is an annual herb found in cismontane woodland and valley and foothill grassland within vernal pools and clay depressions. Typical Blooming Period: April to July Typical Elevation Range: 213 to 3,281 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Navarretia prostrata Prostrate vernal pool navarretia	--	S2	1B.1	The prostrate vernal pool navarretia is an annual herb found in coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools. This species is found in alkaline soils in grassland or in vernal pools. Typical Blooming Period: April to July Typical Elevation Range: nine to 3,970 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Nemacladus gracilis Slender nemacladus	--	S4	4.3	The slender nemacladus is an annual herb found in cismontane woodland and valley and foothill grassland. This species is found on sandy washes or	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity

				rocky slopes. Typical Blooming Period: March to April Typical Elevation Range: zero to 6,234 feet		Areas.
Neostapfia colusana Colusa grass	FT	SE	1B.1	The Colusa grass is an annual herb found in large, adobe clay vernal pools. This species usually grows on the bottom the vernal pool. Typical Blooming Period: May to August Typical Elevation Range: zero to 656 feet	A/CH	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.
Ophioglossum californicum California adder's-tongue	--	S4	4.2	The California adder's-tongue is a perennial rhizomatous herb found in chaparral, valley and foothill grasslands, and margins of vernal pools. This species is found on mesic soils. The California adder's-tongue is uncommon but can be locally abundant and often overlooked. Typical Blooming Period: January to June Typical Elevation Range: 197 to 1,722 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Orcuttia inaequalis San Joaquin Valley Orcutt grass	FT	SE	1B.1	The San Joaquin Valley orcutt grass is an annual herb found in vernal pools. Typical Blooming Period: April to September Typical Elevation Range: 33 to 2,625 feet	A/CH	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.

Orcuttia pilosa Hairy Orcutt grass	FE	SE	1B.1	The hairy Orcutt grass is an annual herb found in northern claypan, northern hardpan, and northern basalt flow vernal pools within rolling grassland. The species can also be found in alluvial fans, high and low stream terraces, and tabletop lava flows. This species typically grows on acidic sandy or clay loam soils. Typical Blooming Period: May to September Typical Elevation Range: zero to 656 feet	HP/CH	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.
Pentachaeta fragilis Fragile pentachaeta	--	S3	4.3	The fragile pentachaeta is annual herb found in chaparral and lower montane coniferous forests. This species is found on sandy soils, often in openings. Typical Blooming Period: March to June Typical Elevation Range: 148 to 6,890 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Phacelia ciliata var. *opaca* Merced phacelia	--	SH	3.2	The Merced phacelia is an annual herb found in valley and foothill grassland. This species grows on clay and sometimes alkaline soils. Typical Blooming Period: February to May Typical Elevation Range: 197 to 492 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Piperia michaelii Michael's rein orchid	--	--	4.2	The Michael's rein orchid is a perennial herb found on generally dry sites in coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forest	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.

				habitats. Typical Blooming Period: April to August Typical Elevation Range: zero to 3,002 feet		
Potamogeton zosteriformis Eel-grass pondweed	--	S3	2B.2	The eel-grass pondweed is an aquatic annual herb found in freshwater marshes and swamps, ponds, lakes, and streams. Typical Blooming Period: June to July Typical Elevation Range: zero to 6,102 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Pseudobahia bahiifolia Hartweg's golden sunburst	FE	SE	1B.1	The Hartweg's golden sunburst is an annual herb found in cismontane woodland and valley and foothill grassland. This species is found on clay, often acidic soils. Typical Blooming Period: March to April Typical Elevation Range: 49 to 656 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Puccinellia simplex California alkali grass	--	S2	1B.2	The California alkali grass is an annual herb found in sinks, flats and lake margins within chenopod scrub, meadows, seeps, vernal pools, and valley and foothill grassland. This species grows on alkaline soils and vernally mesic sites. Typical Blooming Period: March to May Typical Elevation Range: zero to 8,268 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Sagittaria sanfordii Sanford's arrowhead	--	S3	1B.2	The Sanford's arrowhead is a perennial rhizomatous herb found in freshwater marshes and swamps. This species is found in standing or slow-moving	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity

				freshwater ponds and ditches. Typical Blooming Period: May to October Typical Elevation Range: zero to 2,133 feet		Areas.
Senecio aphanactis Chaparral ragwort	--	S2	2B.2	The chaparral ragwort is an annual herb found in chaparral, cismontane woodland, and coastal scrub on dry open rocky areas, sometimes on alkaline substrate. Typical Blooming Period: January to April Typical Elevation Range: 49 to 2,625 feet	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Sidalcea keckii Keck's checkerbloom	FE	S2	1B.1	The Keck's checkerbloom is an annual herb found in cismontane woodland, valley and foothill grassland, and grassy slopes. This species is found on serpentine and clay soil. Typical Blooming Period: April to May Typical Elevation Range: 246 to 2,133 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Streptanthus insignis ssp. *lyonii* Arburua Ranch jewelflower	--	S2	1B.2	The Arburua Ranch jewelflower is an annual herb found in coastal scrub, grassland, and oak woodland habitats. This species is sometimes found on serpentine soils. Typical Blooming Period: April to May Typical Elevation Range: 656 to 2,953 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Stuckenia filiformis ssp. *alpina*	--	S3	2B.2	The slender-leaved pondweed is an aquatic perennial rhizomatous herb	HP	The habitat typically required by this species may be in MSG-maintained

Slender-leaved pondweed				found in shallow freshwater marshes and swamps, shallow clear water of lakes, and drainage channels. Typical Blooming Period: May to July Typical Elevation Range: 984 to 7,054 feet		streams; therefore, this species has potential to be in Project Activity Areas.
Trichocoronis wrightii var. *wrightii* Wright's trichocoronis	--	S1	2B.1	The Wright's trichocoronis is an annual herb found in marshes and swamps, riparian forest, meadows and seeps, vernal pools, and drying river beds. This species grows on alkaline soils. Typical Blooming Period: May to September Typical Elevation Range: zero to 1,640 feet	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Tuctoria greenei Greene's tuctoria	FE	SR	1B.1	The Greene's tuctoria is an annual herb found in vernal pools. Typical Blooming Period: May to July Typical Elevation Range: zero to 3,510 feet	A/CH	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.

Table Key: Merced Streams Group (MSG); Absent [A] –vegetation community or habitat requirements are not anticipated to be within the Project Activity Areas. Habitat Present [HP] – The required habitat is present within the project activity area. Federal Endangered (FE); Federal Threatened (FT); State Endangered (SE); State Threatened (ST); Watch List (WL); State Species of Special Concern (SSC); State Rare (SR); State Historical (SH) = possibly extirpated from the state; Critical Habitat (CH); S1 = Critically Imperiled - extreme rarity (often 5 or fewer observations) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from California; S2 = Imperiled- rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or California; S3 = Vulnerable- restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation; S4 = Apparently Secure - uncommon but not rare; some cause for long-term concern due to declines or other factors.

California Native Plant Society (CNPS), etc. 1A = Plants presumed extirpated in California and either rare, or extinct elsewhere;1B= Plant species that are rare, threatened, or endangered in California and elsewhere; 2B= Plant species that are rare, threatened, or endangered in California, but are more common elsewhere; 3= Plants about which we need more information; 4 = Plants of limited distribution; 0.1=seriously threatened in California; 0.2 = moderately threatened in

California; and 0.3 = Not very threatened in California.

Project Activity Areas = defined as the top of bank to top of bank of any stream associated with MSG maintained streams. The "bank" includes the physical bank of the stream and all associated riparian vegetation

Information for the habitat requirements and species range was obtained from the following sources: (California Native Plant Society, 2018; California Department of Fish and Wildlife, 2018; Jepson Flora Project (eds.), 2018)

Special-Status Wildlife with Potential to be in the Project Activity Areas

Common and Scientific Names	Status		General Habitat Requirements	Habitat Present/ Absent	Rationale for Species Presence/Absence
	Federal USFWS	State CDFW			
Amphibians					
Ambystoma californiense California tiger salamander	FT	ST	The California tiger salamander is found in cismontane woodland, meadows, seeps, riparian woodland, valley and foothill grassland, vernal pools, and wetland habitats. This species requires underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	HP/CH	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas. There is potential for critical habitat for this species to be in Project Activity Areas.
Lithobates pipiens Northern leopard frog	--	S2	The northern leopard frog is found in various water sources including freshwater marshes, swamps, wetlands, canals, and lakes with rooted aquatic vegetation. During summer months this species is commonly found in wet meadows and fields and will overwinter underwater. This species requires shoreline cover with submerged and emergent vegetation. The northern leopard frog will lay eggs on vegetation just below the surface in shallow, permanent water sources. Within California, extant populations are found in parts of Siskiyou, Modoc, Shasta, Lassen, Tehama, Plumas, Sierra, El Dorado, Alpine, Mono, Inyo, Tulare, Kern, Ventura, Riverside, and Orange counties.	A	MSG-maintained streams are outside of the known range for this species; therefore, this species is not expected to be in Project Activity Areas.

Rana boylii Foothill yellow-legged frog	--	SCT	The foothill yellow-legged frog is found in partly shaded, shallow streams, and riffles with rocky substrate in a variety of habitats. Individuals seek cover under rocks in streams or on shore within a few feet of water. This species is rarely encountered (even on rainy nights) far from permanent water. The foothill yellow-legged frog requires cobble-sized substrate for egg-laying and needs at least 15 weeks to attain metamorphosis.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Rana draytonii California red-legged frog	FT	S2S3	The California red-legged frog is found in lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Suitable habitat includes freshwater ponds or streams with calm stable water, and good water quality. Seasonal water is required for up to five months to allow for egg laying, hatching and metamorphosis.	HP/CH	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.
Spea hammondii Western spadefoot	--	SSC	The western spadefoot is found in open areas with sandy or gravelly soils in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, foothills, and mountains. Grasslands with shallow temporary pools are optimal habitats for this species. The western spadefoot requires vernal pools which are essential for breeding and egg-laying and breeds in pools that do not contain bullfrogs, fish, or	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

			crayfish. Adults remain in underground burrows for most of the year and will initiate surface movement after the first rains of the year.		
Taricha torosa Coast Range newt	--	S4	The coast range newt is found in coastal drainages from Mendocino County to San Diego County. This species nests along margins of bushes or on twigs projecting into pathways, usually willow, *Baccharis* sp., and mesquite in wet forests, oak forests, chaparral, and grasslands. Breeding takes place in ponds, reservoirs, and streams. Terrestrial individuals will migrate up to 0.25 mile to upland habitat.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Birds					
Accipiter cooperii Cooper's hawk	--	WL	The Cooper's hawk is found in cismontane woodland, riparian forest, riparian woodland, and upper montane coniferous forest, in wooded habitats from deep forests to leafy subdivisions and backyards. This species nests mainly in riparian growths of deciduous trees, often in canyon bottoms on river floodplains, and will also nest in live oaks.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Agelaius tricolor Tricolored blackbird	--	SE	The tricolored blackbird is a highly colonial species that is found in freshwater marshes dominated by cattails and bulrushes. This species is most numerous in the Central Valley and vicinity where it forages in fields and farms. This species breeds in large freshwater marshes, in dense strands of	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

			cattails or bulrushes. Largely endemic to California, the tricolored blackbird requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.		
Ammodramus savannarum Grasshopper sparrow	--	SSC	The grasshopper sparrow is found in dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Loosely colonial when nesting, this species favors native grasslands with a mix of grasses, forbs, and scattered shrubs.	A (Nesting) HP (Foraging)	The nesting habitat typically preferred by this species is not expected to be near MSG-maintained streams. However, the habitat typically required for foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Aquila chrysaetos Golden eagle	--	FP	The golden eagle is found in broadleaved upland forests, cismontane woodlands, coastal prairies, Great Basin grasslands, Great Basin scrub, lower montane coniferous forest, pinyon and juniper woodlands, upper montane coniferous forests, and valley and foothill grasslands. Cliff-walled canyons provide nesting habitat in most parts of the range and on large trees in open areas. This species often forages over grasslands, marshes, and along rivers.	A (Nesting) HP (Foraging)	The nesting habitat typically preferred by this species is not expected to be near MSG-maintained streams. However, the habitat typically required for foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.; therefore, this species has potential to be in Project Activity Areas.
Ardea alba Great egret	--	S4	The great egret is found in brackish marsh, estuary, freshwater marsh, riparian forests, and wetlands. This species nests colonially in large trees. The rookery sites are located near marshes, tidal flats, irrigated pastures, and margins of rivers and lakes. The great egret feeds mainly on small fish, but will also eat amphibians, reptiles,	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

			small mammals, and invertebrates.		
Ardea herodias Great blue heron	--	S4	The great blue heron nests colonially in tall trees, cliff sides, and sequestered spots on marshes. This species forages in marshes, lake margins, tidal flats, rivers, streams, and wet meadows. The rookery sites are in close proximity to foraging areas. Colonies need to be protected from human disturbances, which often cause nest desertion.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Asio flammeus Short-eared owl	--	SSC	The short-eared owl is found in swamp lands, both fresh and salt, lowland meadows, and irrigated fields. In Merced County, this species is a winter migrant. This species requires tule patches or tall grass for nesting and daytime seclusion. Nests are on dry ground in depressions concealed with vegetation.	A (Nesting) HP (Foraging)	The nesting habitat typically preferred by this species is not expected to be near County maintained culverts or bridge crossings. However, the habitat typically required for foraging may be in County maintained culverts or bridge crossings; therefore, this species has potential to be in Project Activity Areas.
Athene cunicularia Burrowing owl	--	SSC	The burrowing owl is found in open, dry, annual, or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. This species is a subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. The burrowing owl is also common in disturbed areas, including roadsides, and may develop burrows in debris piles. Burrowing owls are opportunistic feeders and prey upon insects, scorpions, small mammals, birds, amphibians, and reptiles.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

Botaurus lentiginosus American bittern	--	S3S4	The American bittern range includes most of North America. This species is a wading bird found in marshes and the coarse vegetation at the edge of lakes and ponds. Nests are constructed above the water, usually among bulrushes and cattails.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Branta hutchinsii leucopareia Cackling (=Aleutian Canada) goose	Delisted	S3	The cackling goose winters in Sacramento and San Joaquin Counties on lakes, reserves, ponds, and can be found in inland prairies. This species forages on natural or cultivated pastures.	A (Nesting) A (Foraging)	MSG-maintained streams are outside the known range for this species; therefore, this species is not expected to be in Project Activity Areas.
Buteo regalis Ferruginous hawk	--	WL	The ferruginous hawk is found in grasslands, sagebrush country, saltbrush-greasewood shrublands, and edges of pinyon-juniper forests at low to moderate elevations. This species avoids areas of intensive agriculture, urban, and suburban development and nests on cliffs, outcrops, and in tree groves. When nesting in trees, the nest tree is often isolated, or in a transition zone to an adjacent community. The ferruginous hawk eats mostly lagomorphs (hare-shaped), ground squirrels, and mice.	A (Nesting) A (Foraging)	The habitat typically preferred by this species for nesting and foraging is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Buteo swainsoni Swainson's hawk	--	ST	The Swainson's hawk breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. This species requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

			populations. The current distribution of Swainson's hawks is in the Central Valley and northeastern California from Butte Valley east to Nevada, south-central Modoc County, and eastern Lassen County. The range does not extend to the North Coast of California.		
Charadrius alexandinus nivosus Western snowy plover	FT	SSC	The Pacific coast population of the western snowy plover breeds primarily on coastal beaches from southern Washington to southern Baja California, Mexico. The population breeds above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. The western snowy plover is found on sandy beaches, salt pond levees and shores of large alkali lakes. This species requires sandy, gravelly, or friable soils for nesting.	A (Nesting) A (Foraging)	The habitat typically preferred by this species for nesting and foraging is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Charadrius montanus Mountain plover	--	SSC	The mountain plover breeds in the high plains east of the Rocky Mountains from Montana to New Mexico and in western Texas and western Oklahoma south to central Mexico. In California, the primary wintering areas are the Central and Imperial Valleys. This species is strongly associated with short-grass prairie habitats, or their equivalents, that are flat and nearly devoid of vegetation. The mountain plover prefers grazed areas as well as areas with burrowing rodents.	A (Nesting) A (Foraging)	MSG-maintained streams are outside the known range for this species; therefore, this species is not expected to be in Project Activity Areas.

Chlidonias niger Black tern	--	SSC	The black tern is found near freshwater lakes, ponds, marshes, and agricultural fields. During migration, this species is found in coastal lagoons and estuaries. The black tern breeds primarily in the Modoc Plateau region, with some breeding in the Sacramento and San Joaquin Valleys.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Circus cyaneus Northern harrier	--	SSC	The northern harrier is a widespread migrant and winter visitor through California. The breeding range includes coastal areas, Central Valley, northeastern California, and Sierra Nevada region up to 3,600 feet. This species breeds and forages in a variety of open (treeless) habitats that provide adequate vegetative cover, an abundance of suitable prey, and scattered hunting, plucking, and lookout perches such as shrubs or fence posts. In California, such habitats include freshwater marshes, brackish and saltwater marshes, wet meadows, weedy borders of lakes, rivers and streams, annual and perennial grasslands (including those with vernal pools), weed fields, ungrazed or lightly grazed pastures, some croplands, sagebrush flats, and desert sinks. This species nests on the ground in shrubby vegetation, usually at marsh edges; nests are built of a large mound of sticks in wet areas.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Coturnicops noveboracensis	--	SSC	The yellow rail is a rare summer California resident of fresh-water	A (Nesting)	MSG-maintained streams are outside the known nesting range for this

Yellow rail			marshlands in the eastern Sierra Nevada mountains in Mono County. During the summer, the yellow rail is found in large wet meadows or shallow marshes dominated by sedges and grasses. Small numbers winter regularly in a few coastal marshes and the Suisun Marsh region, where the Central Valley merges with the San Francisco Bay estuary. The yellow rail is found in shallow marshes and wet meadows. During the winter, this species is found in drier fresh-water and brackish marshes, as well as dense, deep grass, and rice fields.	HP (Foraging)	species. However, the habitat typically required for foraging may be in MSG maintained streams; therefore, this species has potential to be in Project Activity Areas.
Dendrocygna bicolor Fulvous whistling-duck	--	S1	The fulvous whistling-duck is found in freshwater and coastal marshes. In California, the breeding range for this species is Imperial Valley, near the Salton Sea. Migrates to wintering areas in Mexico. In the United States, this species prefers rice fields and tall-grass areas flooded to a depth of approximately 1.5 feet. This species nests over water within emergent swamps and on dry hummocks between ponds. Fulvous whistling-ducks feed nocturnally and are almost totally granivorous as adults.	A (Nesting) A (Foraging)	MSG-maintained streams are outside the known range for this species; therefore, this species is not expected to be in Project Activity Areas.
Egretta thula Snowy egret	--	S4	The snowy egret is found in marshes and swamps, meadows and seeps, riparian forest, riparian woodland, and wetlands. This species is a colonial nester with nest sites situated in protected beds of dense tules or within	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

			trees or shrubs five to 10 feet up from the ground. Rookery sites are situated close to foraging areas. The snowy egret forages in shallow water for fish, insects, and crustaceans, and may also forage in open fields.		
Elanus leucurus White-tailed kite	--	FP	The white-tailed kite is found in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. This species favors open grasslands, meadows, or marshes for foraging, close to isolated, dense-topped trees for nesting and perching.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Eremophila alpestris actia California horned lark	--	WL	The California horned lark is found in coastal regions, chiefly from Sonoma County to San Diego County. This species is also found in the main part of San Joaquin Valley and east to the foothills. The California horned lark is found in short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	A (Nesting) HP (Foraging)	The nesting habitat for this species is not anticipated to be in MSG-maintained streams. However, the habitat typically required for foraging may be in MSG maintained streams; therefore, this species has potential to be in Project Activity Areas.
Falco columbarius Merlin	--	WL	The merlin is a winter migrant in California and breeds in Alaska and Canada. This species frequents open habitats at low elevation near water and tree stands. The species favors coastlines, lakeshores, and wetlands.	A (Nesting) HP (Foraging)	MSG-maintained streams are outside the known nesting range for this species. However, the habitat typically required for foraging may be in MSG maintained streams; therefore, this species has potential to be in Project Activity Areas.
Falco mexicanus Prairie falcon	--	WL	The prairie falcon is found in grasslands, shrubby deserts, shrub-steppe (a low rainfall grassland) and other open areas	A (Nesting) A	The habitat typically preferred by this species for nesting and foraging is not expected to be near MSG-maintained

			up to about 10,000 feet elevation. In the winter, the majority of this species are found in the Great Plains and Great Basin, where they feed mostly on other birds such as horned larks and meadowlarks. In the summer, this species eats mostly small mammals, such as ground squirrels, pikas, birds and insects. The prairie falcon nests on ledges, cavities, and crevices of cliff faces, or uses abandoned nests of eagles, hawks, or ravens.	(Foraging)	streams; therefore, this species is not expected to be in Project Activity Areas.
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	--	SSC	The saltmarsh common yellowthroat is found in San Francisco Bay region, in fresh and salt water marshes. This species requires thick, continuous cover down to the water surface for foraging; tall grasses, tule patches, and willows for nesting.	A (Nesting) A (Foraging)	MSG-maintained streams are outside the known range for this species; therefore, this species is not expected to be in Project Activity Areas.
Grus canadensis tabida Greater sandhill crane	--	ST	The greater sandhill crane is found in marshes and swamps, meadows and seeps, and wetland habitats. This species prefers grain fields within four miles of a shallow body of water and uses irrigated pastures as loafing sites. The greater sandhill crane nests in wetland habitats in northeastern California and winters in the Central Valley.	A (Nesting) HP (Foraging)	MSG-maintained streams are outside the known nesting range for this species. However, the habitat typically required for foraging may be in MSG maintained streams; therefore, this species has potential to be in Project Activity Areas.
Gymnogyps californianus California condor	FE	SE	The California condor has been reintroduced to mountains of southern and central California, Arizona, Utah, and Baja California. Nesting habitats range from scrubby chaparral to forested mountain regions up to about	A (Nesting) A (Foraging)	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.

			6,000 feet elevation. Foraging areas are in open grasslands and can be far from primary nesting sites.		
Haliaeetus leucocephalus Bald eagle	Delisted	SE	The bald eagle is found in old growth lower montane coniferous forests along ocean shores, lake margins, and rivers for both nesting and wintering. This species nests in large, old-growth, or dominant live trees with open branches, especially ponderosa pine. Most nests are typically within one mile of a water source with abundant fish. This species requires large bodies of water or free flowing rivers with fish and adjacent snags or other hunting perches. The bald eagle roosts communally in winter.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Icteria virens Yellow-breasted chat	--	SSC	The yellow-breasted chat is found in riparian forests, riparian scrub, and riparian woodlands. The yellow-breasted chat nests in low, dense riparian thickets near water courses, consisting of willow, blackberry, and wild grape. This species forages and nests within 10 feet of the ground.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Ixobrychus exilis Least bittern	--	SSC	The least bittern is found in freshwater and brackish marshes with tall, dense emergent vegetation and clumps of woody plants over deep water. This species is restricted to dense reeds with permanent water and is capable of colonizing new areas. This species is a colonial nester in marshlands and borders of ponds and reservoirs which provide ample cover. Nests are usually placed low in tules, over water.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

Lanius ludovicianus Loggerhead shrike	--	SSC	The loggerhead shrike is found in semi-open country with lookout posts, such as wires, trees, and scrub. This species builds nests in thorny vegetation in semi-open terrain, from large clearings in wooded regions to open grassland or desert with a few scattered trees or large shrubs.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Numenius americanus Long-billed curlew	--	WL	The long-billed curlew is found in Great Basin grasslands and meadows and seeps. This species breeds in upland shortgrass prairies and wet meadows in northeastern California. The long-billed curlew prefers gravelly soils and gently rolling terrain.	A (Nesting) A (Foraging)	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Nycticorax nycticorax Black-crowned night heron	--	S4	The black-crowned night heron is a primarily nocturnal or crepuscular species found in marshes, swamps, riparian forests, riparian woodlands, and wetlands. The rookery sites are usually located near aquatic or emergent foraging sites within dense-foliaged trees, dense emergent wetlands, dense shrubbery, or vine tangles. Non-breeding roosts may be farther away from nesting sites. This species is a colonial nester, usually in trees, and occasionally in tule patches.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Pandion haliaetus Osprey	--	WL	The osprey is found near ocean shores, bays, fresh-water lakes, and larger streams. This species builds large nests in tree-tops within approximately 15 miles of a body of water where fish are abundant.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

Phalacrocorax auritus Double-crested cormorant	--	WL	The double-crested cormorant is a colonial nester on coastal cliffs, offshore islands, riparian forest, and scrub or woodland habitat near lake margins. This species requires undisturbed nest-sites adjacent to water, on islands or mainland. This species uses wide rock ledges on cliffs; rugged slopes; and live or dead trees, especially tall ones, for nesting. This species feeds on fish and other aquatic life near the mid to upper levels of the water and rests in daytime and roosts overnight beside water on offshore rocks, islands, steep cliffs, dead branches of trees, wharfs, jetties, or even transmission lines. Perching sites must be barren of vegetation.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Plegadis chihi White-faced ibis	--	WL	The white-faced ibis is found in marshes, irrigated land, and tules. This species forages in shallow water including marshes, flooded pastures, and irrigated fields. The white-faced ibis breeds in colonies in areas of dense marsh or in low shrubs or trees above water. Within California, this species uncommonly nests in the San Joaquin and Sacramento Valleys.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Setophaga petechia Yellow warbler	--	SSC	The yellow warbler is found in riparian plant associations near water. This species also nests in montane shrubbery in open conifer forests in the Cascades and Sierra Nevada. The yellow warbler is frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

			cottonwoods (*Populus* sp.), sycamores (*Plantanus* sp.), ash (*Fraxinus* sp.), and alders (*Alnus* sp.).		
Vireo bellii pusillus Least Bell's vireo	FE	SE	The least Bell's vireo is found in dense, willow dominated riparian habitat with lush understory vegetation. This species is a summer resident of southern California in low riparian areas near water or in dry river bottoms below 2,000 feet. Least Bell's vireo nests are placed along margins of bushes or on twigs projecting into pathways. This species primarily occupies riparian habitats that typically feature dense cover within three to seven feet of the ground and a dense, stratified canopy. This species is found at the edge of riparian growth along water or along dry parts of intermittent streams. In general, vireos nest in vegetation typically dominated by willows and mule fat but may also be populated by a variety of shrubs, trees, and vines. Nests are typically built within three to four feet off the ground in the fork of willows, mulefat, or other understory vegetation, such as California wild rose (*Rosa californica*). The most critical structural component to vireo breeding habitat is a dense shrub layer at two to 10 feet above the ground. Vireos forage in riparian habitat and at times are known to forage in mustard and coastal sage habitat patches in close proximity to their nests.	A (Nesting) A (Foraging)	MSG-maintained streams are outside the known range for this species; therefore, this species is not expected to be in Project Activity Areas.

Xanthocephalus xanthocephalus Yellow-headed blackbird	--	SSC	The yellow-headed blackbird nests in freshwater emergent wetlands often along borders of lakes or ponds with dense vegetation and deep water. This species only nests where large insects such as dragonflies and damselflies are abundant, and nesting is timed with maximum emergence of aquatic insects. Nests are lashed to standing vegetation growing in water, usually no more than three feet above the water's surface. This species forages on the ground in open fields, near the edge of water, and in low marsh vegetation.	HP (Nesting) HP (Foraging)	The habitat typically required by this species for nesting and foraging may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Crustaceans					
Branchinecta conservatio Conservancy fairy shrimp	FE	S2	The conservancy fairy shrimp is endemic to the grasslands of the northern two-thirds of the Central Valley where it is found in large, turbid pools. This species is found in astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains that last until June.	A/CH	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.
Branchinecta longiantenna Longhorn fairy shrimp	FE	S1S2	The longhorn fairy shrimp is endemic to the eastern margin of the Central Coast mountains in seasonally astatic grassland vernal pools. This species is found in small, clear-water depressions in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales.	A/CH	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.
Branchinecta lynchi Vernal pool fairy shrimp	FT	S3	The vernal pool fairy shrimp is endemic to the grasslands of the Central Valley, Central Coast mountains, and South	A/CH	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore,

			Coast mountains, and found in astatic rain-filled pools. This species is found in small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools		this species is not expected to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.
Branchinecta mesovallensis Midvalley fairy shrimp	--	S2S3	The midvalley fairy shrimp is found in small, short-lived vernal pools and grass-bottomed swales ranging from four to 663 square feet in area and averaging less than four inches in depth.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Lepidurus packardi Vernal pool tadpole shrimp	FE	S3S4	The vernal pool tadpole shrimp is found in vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. This species is found in pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	A/CH	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas. Designated critical habitat for this species is not expected to be in Project Activity Areas.
Linderiella occidentalis California linderiella	--	S2S3	The California linderiella is found in seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. This species is found in pools with water of very low alkalinity, conductivity, and total dissolved solids.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Fish					
Cottus gulosus Riffle sculpin	--	SSC	The riffle sculpin is found in coastal rivers and streams in central California and are generally found in the upper reaches. Within Merced County, this species is found in the northeastern portion of the county. This species prefers sand and gravel substrates and	A	MSG-maintained streams are outside the known range for this species; therefore, this species is not expected to be in Project Activity Areas.

			are most commonly found in riffles, hiding under objects near the bottom of streams and rivers during the day, and emerging to feed on invertebrates at night.		
Entosphenus hubbsi Kern brook lamprey	--	SSC	The Kern brook lamprey is found in aquatic habitats in flowing waters of the Sacramento and San Joaquin rivers. This species is found in gravel-bottomed areas for spawning and muddy-bottomed areas where ammocoetes can burrow and feed.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Entosphenus tridentatus Pacific lamprey	--	SSC	The Pacific lamprey lives in a marine environment and migrates to freshwater habitats to spawn. In California, the current freshwater range of the species includes flowing waters of the Sacramento/San Joaquin rivers. Freshwater aquatic habitats where this species is found include swift-current gravel-bottomed areas for spawning and soft sand or mud-bottomed areas where larva can burrow and feed. This species is extirpated above dams and other impassable barriers in streams and rivers.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Hypomesus transpacificus Delta smelt	FT	SE	The delta smelt is found in the Sacramento-San Joaquin Delta. This species is found seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay. The delta smelt is most often found at salinities less than two parts per thousand and seldom at salinities greater than 10 parts per thousand.	A	MSG-maintained streams are outside the known range for this species; therefore, this species is not expected to be in Project Activity Areas.

Hysterocarpus traski traski Sacramento-San Joaquin tule perch	--	S2S3	The Sacramento-San Joaquin tule perch is found in freshwater habitats in the Delta, Sacramento River, Russian River, and Clear Lake, and has also been introduced to many ponds throughout California. The tule perch tends to stay in thick vegetation along the shoreline and may commonly be found in tule beds. This species consumes small invertebrates. The tule perch is viviparous and young are born fully developed.	A	MSG-maintained streams are outside the known range for this species; therefore, this species is not expected to be in Project Activity Areas.
Lampetra ayresii River lamprey	--	SSC	The river lamprey is found in the lower Sacramento River, San Joaquin River, and Russian River. This species may also be found in coastal streams north of San Francisco Bay. Adults require clean, gravelly riffles, and ammocoetes need sandy backwaters or stream edges with good water quality. This species requires water temperatures less than 77 degrees Fahrenheit.	A	This species is not found within MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Lavinia exilicauda exilicauda Sacramento hitch	--	SSC	The Sacramento hitch is found in low elevation lakes, slow-moving small to large rivers, sloughs, backwaters, and sluggish sand pools. This species may also be found in reservoirs. In Merced County, this species is found in the northern portion of the county and the San Luis Reservoir. Spawning takes place in small streams or shallow waters of lakes over substrate of fine to medium gravel, swept clean by wave action or current, in water temperatures of 57 to 64 degrees	A	This species is not found within MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.

			Fahrenheit. The native range of the Sacramento hitch includes the Sacramento-San Joaquin drainages. Existing mainly as scattered, small populations over a broad geographic area, this species appears to be in long-term decline.		
Mylopharodon conocephalus Hardhead	--	SSC	The hardhead is found in low to mid-elevation streams in the Sacramento-San Joaquin and Russian River drainages and tributaries including but not limited to the Kern River, Kings River, Yuba River, Napa River, Sacramento River, San Joaquin River, Russian River, and Pit River. This species is absent from the Cosumnes River and has a limited distribution in the Napa River. The hardhead prefers clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. This species is not found where exotic centrarchids predominate or from streams that have been heavily altered. Hardhead are also likely to be absent from stream reaches above barriers, even if there are ladders that allow salmonid passage because they are poor swimmers.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Oncorhynchus mykiss irideus pop. 11 Steelhead – Central Valley DPS	FT	S2	The steelhead – Central Valley Distinct Population Segment (DPS) is found in rivers below dams in the Sacramento River Basin and has been found in the San Joaquin River basin. In Merced County, the species range includes the San Joaquin River and Merced River. This species requires cool water with	A	This species is not found within MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.

			natural cover such as submerged and overhanging large wood, and rocks and boulders.		
Oncorhynchus tshawytscha pop. 13 Chinook salmon – Central Valley fall/late fall-run ESU	--	SSC	The Chinook salmon – Central Valley fall/late fall-run Evolutionary Specific Unit (ESU) is found in the Sacramento and San Joaquin rivers and their tributaries. Within Merced County, the range of this ESU of the Chinook salmon includes the San Joaquin River, Merced River, portions of Bear Creek, and portions of Black Rascal Slough. Adults migrate from the ocean to their natal freshwater streams and rivers to mate. Fall-run chinook return to freshwater in September to October, and late-fall-run chinook in December or January. This species feeds on terrestrial and aquatic insects and other crustaceans while young, and mostly on other fish when adults. Currently, the late fall-run chinook salmon are found primarily in the Sacramento River, where most spawning and rearing of juveniles takes place in the reach between the Red Bluff Diversion Dam and Redding.	A	The habitat typically required by this species may be in MSG-maintained streams but there are downstream impassible barriers preventing anadromous fish passage into MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Pogonichthys macrolepidotus Sacramento splittail	--	SSC	The Sacramento splittail is endemic to the lakes and rivers of the Central Valley (Sacramento/ San Joaquin flowing waters), in slow moving river sections and dead-end sloughs. This species is mostly confined to the Delta, Suisun Bay and associated marshes. However, it is still known to spawn in the lower San Joaquin River and occasionally this	A	This species is not found within MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.

			species is found in the San Luis Reservoir. This species requires flooded vegetation for spawning and foraging for young.		
Invertebrates					
Bombus crotchii Crotch bumble bee	--	S1S2	The Crotch bumble bee is found in open grassland and scrub habitats in coastal California east to the Sierra-Cascade crest and south into Mexico. This species nests underground in abandoned rodent burrows. Food plant genera for the Crotch bumblebee include snapdragons (*Antirrhinum* sp.), phacelia (*Phacelia* sp.), clarkia (*Clarkia* sp.), tree poppy (*Dendromecon* sp.), poppy (*Eschscholzia* sp.), and buckwheat (*Eriogonum* sp.).	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT	S2	The valley elderberry longhorn beetle's range is limited to the Central Valley from southern Shasta County to Fresno County. The species is found on or close to its obligate host plant, the blue elderberry (*Sambucus mexicana*) in association with streams and rivers. The species requires host plants with stems a minimum of one inch in diameter.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Lytta molesta Molestan blister beetle	--	S2	The molestan blister beetle is found in the Central Valley of California, from Contra Costa to Kern and Tulare counties. Little life history or behavioral information is known about this species. However, it has only been observed associated with vernal pools. Larvae of the *Lytta* genus are nest parasites of	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.

			solitary bees.		
Rhaphiomidas trochilus San Joaquin Valley giant flower-loving fly	--	S1	The San Joaquin Valley giant flower-loving fly found in the southern Kern County portion of the Central Valley of California, surviving in only one remaining population. Little is known about the life history or behavior of this species. Members of this genus are frequently found in sand dune areas.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Mammals					
Ammospermophilus nelson Nelson's antelope squirrel	--	ST	The Nelson's antelope squirrel is found in chenopod scrub in the western San Joaquin Valley from 200 to 1,200 feet elevation, on dry, sparsely vegetated loam soils. This species digs burrows or use kangaroo rat burrows. Nelson's antelope squirrels require widely scattered shrubs, forbs, and grasses in broken terrain with gullies and washes.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Antrozous pallidus Pallid bat	--	SSC	The pallid bat is found year-round in a variety of low-elevation habitats in most parts of California, including grasslands, shrub lands, woodlands, and forests. This species is thought to prefer open, dry habitats with rocky areas for roosting. The pallid bat day roosts in caves, crevices, mines, hollow trees, buildings, and bridges, and night roosts in more open sites, such as porches, open buildings, and bridges. Roosts must protect bats from high temperatures, and this species will move deeper into cover if temperatures rise. The pallid bat is highly sensitive to	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

			disturbance.		
Corynorhinus townsendii Townsend's big-eared bat	--	SSC	The Townsend's big-eared bat is found in a variety of habitat types throughout California, including coniferous forests, deserts, native prairies, riparian communities, agricultural areas, and coastal habitats. This species is thought to be most abundant in mesic habitats. The Townsend's big-eared bat roosts in caves and cave-like structures, such as exposed cavity-forming rock and mines. This species will also roost in human structures such as attics and barns and has been found on occasion in bridges. Townsend's big-eared bats prefer to roost in large rooms and do not use crevices. The Townsend's big-eared bat is extremely sensitive to human disturbance.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Dipodomys heermanni dixoni Merced kangaroo rat	--	S2S3	The Merced kangaroo rat is found in grassland and savanna communities in eastern Merced and Stanislaus Counties. This species requires fine, deep, well-drained soil for burrowing.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Dipodomys ingens Giant kangaroo rat	FE	SE	The giant kangaroo rat is found in annual grasslands on the western side of the San Joaquin Valley, and in marginal habitat in alkali scrub. This species requires level terrain and sandy loam soils for burrowing.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Dipodomys nitratoides exilis Fresno kangaroo rat	FE	SE	The Fresno kangaroo rat is found in friable sandy or silty soils in areas with no to moderate shrub cover. This species prefers to burrow in nearly level	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity

			terrain. This species forages on open ground and under shrubs, feeding primarily on seeds of annual forbs and grasses (e.g. brome grasses and wild oats).		Areas.
Eumops perotis californicus Western mastiff bat	--	SSC	The western mastiff bat is found in many open, semi-arid and arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban areas. This species has been recorded throughout central and southern California, with a concentration in southern California. This species roosts in crevices on high vertical cliffs or surfaces (including buildings), trees, or tunnels. Because of their large size, they typically require a larger drop distance from roosting sites.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Lasiurus blossevillii Western red bat	--	SSC	The western red bat roosts in forests and woodlands from sea level up through mixed conifer forests. This species roosts primarily in trees, sometimes shrubs; roost sites often are in edge habitats adjacent to streams, fields, or urban areas. This species forages over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Lasiurus cinereus Hoary bat	--	S4	The hoary bat is found in a wide variety of habitats and elevations in California. This species generally roosts in dense foliage of medium to large trees, and prefers open habitats or habitat	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

			mosaics, with access to trees for cover and open areas or habitat edges for feeding.		
Myotis yumanensis Yuma myotis	--	S4	The Yuma myotis is common in California. Optimal habitats for this species are open forests and woodlands with sources of water over which to feed but this species has been documented in many urban areas. The Yuma myotis roosts in buildings, mines, caves, or crevices. The species also has been seen roosting in abandoned swallow nests and under bridges. Separate, often more open, night roosts may be used.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Perognathus inornatus San Joaquin pocket mouse	--	S2S3	The San Joaquin pocket mouse is found in grassland, oak savanna and arid scrubland in the southern Sacramento Valley, Salinas Valley, San Joaquin Valley, and adjacent foothills, south to the Mojave Desert. This species is associated with fine-textured, sandy, friable soils.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Taxidea taxus American badger	--	SSC	The American badger is most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. This species needs a suitable prey base, friable soils, and open, uncultivated ground. Ground squirrels are a major prey item, but the American badger will also feed on other burrowing rodents, reptiles, and insects.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Vulpes macrotis mutica	FE	SE	The San Joaquin kit fox is found in annual grasslands or grassy open areas	HP	The habitat typically required by this species may be in MSG-maintained

San Joaquin kit fox			with scattered shrubby vegetation. This species needs loose-textured sandy soils for burrowing and feeds on insects, rabbits, and rodents.		streams; therefore, this species has potential to be in Project Activity Areas.
Mollusks					
Gonidea angulata Western rigid mussel	--	S1S2	The western ridged mussel is a sedentary, long-lived mollusk found primarily in creeks and rivers. This species is found on the bottom of streams, rivers, and lakes with substrates that vary from gravel to firm mud, and include at least some sand, silt, or clay. Low shear stress (stress caused by fast flowing water over substrate), substrate stability, and flow refuges are important determinants of freshwater mussel survival. This species was originally found within most of the state but is likely now extirpated from Central and southern California. The western ridged mussel is often present in areas with seasonally turbid streams but is absent from areas with continuously turbid water. This species requires a host fish to complete reproduction and dispersal.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Margaritifera falcata Western pearlshell	--	S1S2	The western pearlshell is a freshwater mussel which prefers lower velocity waters of streams. Historical records for this species include locations in the northern San Joaquin Valley.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Reptiles					
Anniella pulchra Northern California	--	SSC	The northern California legless lizard prefers warm, loose soil with plant	HP	The habitat typically required by this species may be in MSG-maintained

legless lizard			cover. This species is found in sparsely vegetated beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. This species has been found on the floor of the San Joaquin valley. The northern California legless lizard usually forages at the base of shrubs or other vegetation either on the surface or just below it in leaf litter or sandy soil. Legless lizards sometimes seek cover under surface objects such as flat boards and rocks where they lie barely covered in loose soil.		streams; therefore, this species has potential to be in Project Activity Areas.
Emys marmorata Western pond turtle	--	SSC	The western pond turtle is found in slow moving rivers, streams, lakes, ponds, wetlands, reservoirs, and brackish estuarine waters. This species prefers areas that provide logs, algae, or vegetation for cover, and boulders, partially submerged logs, vegetation mats, or open mud banks for basking, and is found below 6,000 feet elevation.	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.
Gambelia sila Blunt-nosed leopard lizard	FE	SE	The blunt-nosed leopard lizard is a resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. This species seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Masticophis flagellum ruddocki San Joaquin	--	SSC	The San Joaquin coachwhip can be found in open, dry habitats with little or no tree cover, in valley grassland and	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore,

coachwhip			saltbush scrub in the San Joaquin Valley. This species requires mammal burrows for refuge and oviposition sites.		this species is not expected to be in Project Activity Areas.
Phrynosoma blainvillii Coast horned lizard	--	SSC	The coast horned lizard is found in open areas of sandy soil and low vegetation in valleys, foothills, and semiarid mountains. This species is also found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Preferred plant species are either chaparral or a chaparral/coastal sage scrub mix with bare ground coverage averaging 20 to 40 percent. California buckwheat (*Eriogonum fasiculatum*) is considered a primary indicator species for favorable soil and climatic conditions. Key habitat elements for this species are the presence of loose, fine soils, with a high sand content; an abundance of native ants; open areas for basking; and areas with low dense shrubs for refuge.	A	The habitat typically preferred by this species is not expected to be near MSG-maintained streams; therefore, this species is not expected to be in Project Activity Areas.
Thamnophis gigas Giant garter snake	FT	ST	The giant garter snake is found in marshes, sloughs, drainage canals, irrigation ditches, and occasionally in slow-moving creeks. This species requires freshwater with emergent vegetation (typically tulle and cattail) cover that will allow foraging, an upland component near aquatic habitat that can be used for thermoregulation and for summer shelter in burrows, and upland refugia that will serve as winter hibernacula. This species preys upon	HP	The habitat typically required by this species may be in MSG-maintained streams; therefore, this species has potential to be in Project Activity Areas.

			fish and amphibians.		

Table Key: Merced Streams Group (MSG); Absent [A] – The habitat requirements are not expected in Project Activity Areas. Habitat Present [HP] – There is habitat present within Project Activity Areas. Federal Endangered (FE); Federal Threatened (FT); State Endangered (SE); State Threatened (ST); Fully Protected (FP); Watch List (WL); State Species of Special Concern (SSC); Critical Habitat (CH); State Rare (SR); S1 = Critically Imperiled - extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from California; S2 = Imperiled- rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or California; S3 = Vulnerable- restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation; S4 = Apparently Secure - uncommon but not rare; some cause for long-term concern due to declines or other factors.

Project Activity Areas = defined as the top of bank to top of bank of any stream associated with MSG maintained streams. The "bank" includes the physical bank of the stream and all associated riparian vegetation.

Information for the habitat requirements and species range was obtained from the following sources: (California Department of Fish and Wildlife, 2018; Hatfield, Jepsen, Thorp, Richardson, & Colla, 2015; National Marine Fisheries Service, 2016; National Marine Fisheries Service, 2013; The Natomas Basin Conservancy, n.d.; University of California, Davis - Center for Watershed Sciences, 2018).

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APPENDIX C: AB 52 DOCUMENTATION

December 7, 2018

Leanne Walker-Grant
Chairperson
23739 Sky Harbour Road
P.O. Box 410
Friant, CA 93626

Re: Formal Notification of Proposed Merced County Programmatic Operations and Maintenance (O&M) Permitting Program, Merced County, California, Pursuant to the California Environmental Quality Act Assembly Bill (AB) 52 Consultation, Public Resources Code § 21080.3.1(d)

Dear Chairperson Walker-Grant,

The County of Merced (County) has received your letter dated April 18, 2016 requesting to be formally notified of projects in the area traditionally and culturally affiliated with the Table Mountain Rancheria, pursuant to the requirements of the California Environmental Quality Act (CEQA) AB 52 consultation, Public Resources Code (PRC) § 21080.3.1. The map enclosed with your letter indicates the referenced project, proposed within the County limits, is within the Table Mountain Rancheria's ancestral territory.

In compliance with PRC § 21080.3.1 (d), this formal notification letter describes the proposed Merced County Programmatic O&M Permitting Program and its location. In accordance with the CEQA Guidelines (14 California Code of Regulations [CCR] Section 15082), the County of Merced anticipates that a Mitigated Negative Declaration is the appropriate environmental review document.

The Project site encompasses several streams/waterways and bridge/culvert locations throughout the entire County in California (**Figures 1** and **2**). The Merced County Programmatic O&M Permitting Program proposes to conduct routine maintenance tasks within jurisdictional improved and unimproved streams and waterways. Activities may involve weed/vegetation control, channel sediment and debris removal, preliminary geotechnical exploration, rodent control, access roads maintenance, channel slope repair, water control structures repair, and bridge/culvert repairs.

In accordance with PRC § 21080.3.1(b) and (d), the Table Mountain Rancheria has 30 days from this formal notification to respond, in writing, with any request for consultation regarding the proposed Project. Any such request should be addressed to the following personnel:

Name: Matt Hespenheide, Project Manager
Address: 715 Martin Luther King Jr. Way, Merced, CA 95341
Phone Number: 209-385-7601
Email Address: mhespenheide@co.merced.ca.us

The County's consultant, Environmental Planner/Archaeologist Amy Dunay, M.A., RPA, can also be contacted by phone at (916) 858-0642 or email at adunay@dokkenengineering.com regarding this project.

Thank you for your time and attention to this matter.

Sincerely,

Matt Hespenheide
Project Manager

Attachments: Figure 1-Project Vicinity
Figure 2- Project Location

December 7, 2018

Robert Pennell
Tribal Cultural Resources Director
23739 Sky Harbour Road
P.O. Box 410
Friant, CA 93626

Re: Formal Notification of Proposed Merced County Programmatic Operations and Maintenance (O&M) Permitting Program, Merced County, California, Pursuant to the California Environmental Quality Act Assembly Bill (AB) 52 Consultation, Public Resources Code § 21080.3.1(d)

Dear Director Pennell,

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In compliance with PRC § 21080.3.1 (d), this formal notification letter describes the proposed Merced County Programmatic O&M Permitting Program and its location. In accordance with the CEQA Guidelines (14 California Code of Regulations [CCR] Section 15082), the County of Merced anticipates that a Mitigated Negative Declaration is the appropriate environmental review document.

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The County's consultant, Environmental Planner/Archaeologist Amy Dunay, M.A., RPA, can also be contacted by phone at (916) 858-0642 or email at adunay@dokkenengineering.com regarding this project.

Thank you for your time and attention to this matter.

Sincerely,

Matt Hespenheide

Project Manager

Attachments: Figure 1-Project Vicinity
Figure 2- Project Location

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

ROBERT PENNELL
TRIBAL CULTURAL RESOURCES DIRECTOR
P.O. BOX 410
FRIANT , CA 93626

9590 9402 2913 7094 3190 15

2. Article Number *(Transfer from service label)*

7005 1160 0005 4128 5883

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A. Signature

X

☐ Agent
☑ Addressee

B. Received by *(Printed Name)*

C. Date of Delivery

12/10/18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
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PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

LEANNE WALKER-GRANT
CHAIRPERSON
P.O. BOX 410
FRIANT , CA 93626

9590 9402 2913 7094 3190 08

2. Article Number *(Transfer from service label)*

7005 1160 0005 4128 5906

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent
☐ Addressee

B. Received by *(Printed Name)*

C. Date of Delivery

12/10/18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☒ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
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PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt

APPENDIX D: CEQANET DATABASE QUERY

California Home Tuesday, January 8, 2019

OPR Home > CEQAnet Home > CEQAnet Query > Search Results

Click Project Title link to display all related documents. Document Type link will display full document description.

Records Found: 127

[First] [Next] [Previous] [Last]

Page: **1** 2 3

Query Parameters: Merced None All **Date Range:** 2018-01-01 to 2019-01-31

SCH#	Lead Agency	Project Title	Description	Document Type	Date Received
2018121046	Livingston, City of	Hammatt Avenue Project	The project applicant proposes to construct an ARCO fueling station, restaurants and other commercial structures. The project would include four structures approx 3,800 sf, 2,800 sf, 2,500 sf and 2,641 sf in size. Proposed commercial uses would include a convenience store, full-service restaurant, quick-service restaurant, and a car wash. Site improvements would include driveways, circulation aisles, parking, landscaping, lighting and signage.	MND	12/19/2018
2018101013	Los Banos, City of	Los Banos Police Station CEQA	The Police Department proposes to consolidate operations within a new 35,000 sf building located at 1111 G St, Los Banos. Development would include offices, new jail cells, parking, and would house animal control and logistical facilities such as communications.	NOD	12/17/2018
2015081014	Grassland Water District	North Grasslands Water Conservation and Water Quality Control Project	CDFW has executed Streambed Alteration Agreement Number 1600-2018-0052-R4, pursuant to section 1602 of the Fish and Game Code to the project Applicant, Grassland Water District. The project is a part of the larger North Grasslands Water Consrvation and Water Quality Control Project, and will include the installation of a water pumo station and associated structures in and adjacent to Eagle Ditch located in Mud Slough.	NOD	12/10/2018
2016091031	Merced County	Godhino Dairy Expansion	David Godinho, the applicant, has requested Authority to Construct (ATC) permits to increase the milking cow herd size from 2,132 cows to 4,000 cows and increase the combined total of dry and milking cows from 2,500 cows to 4,7000 dry and milking cows; add new rotary milking parlor; convert existing milking parlor to hospital milking parlor; increase the umber of milking stalls to 60 stalls; add three new freestall barns; add three new shaded barns and relocate the existing commodity barns. The proposed Project will be located at the existing dairy at 12710 Wilson Road in Merced County.	NOD	11/29/2018
2016121016	Merced County	AJ Borba Holsteins Expansion Project	Tony Borba, the applicant, has requested Authority to Construct (ATC) permits to increase the milking cow herd size from 1,100 milk cows to 2,000 milk cows, increase the dry cows from 150 cry cows to 400 dry cows; increase support stock from 1,300 heads to 2,350 heads, add a new rotary milking parlor; and add two new shaded barns. The project will be located at the existing Antonio J Borba Holsteins Dairy at 6275 MItchell Road in Merced County.	NOD	11/29/2018
2018101015	Los Banos, City of	Sunrise Ranch Vesting Tentative Tract Map 2017-03	The proposed project consists of subdividing 43.4 acres into 197 single-family residential lots consistent with the Los Banos General Plan and the Los Banos Municipal Code.	NOD	11/26/2018
2018111037	Merced, City of	Merced Mall Expansion Project	The Merced Mall would be expanded in two development phases. Prior to construction, the project sponsor would select one of two alternatives to construct under Phase II. Phase I: Expand existing buildings by 50,000 sf of gross leasable area, and reconfigure, repave, restripe and relandscape the southern parking lot. Phase II, Alternative 1: Construct a 72,000 sf movie theater, and demolish the existing 22,680-sf movie theater and replace with a retail building of similar size. Phase II, Alternative 2: Demolish the existing movie theater and adjacent retail buildings and replace with a 72,000 sf movie theater.	MND	11/19/2018
2018118152	Water Resources, Department of	California Aqueduct MP 74.10L Installation of Replacement Communication Cable	DWR's San Luis Field Division (SLFD) will excavate an approximately 192 feet long, by 6 inch wide, by 3 feet deep trench in the middle of the Aqueduct road, about 6 feet away from the Highway 152 bridge. Each end of the trench will have an additional excavated approximately 4 feet long, by 3 feet wide, by 3 feet deep. B&B Communications (B&B) will then lay a replacement section of cable in the trench and splice it into the existing cable in the excavated areas at each of the trench. After B&B finished splicing the new cable, SLFD will backfill and compact all excavated areas. The old section of the	NOE	11/8/2018

			communications cable will remain buried and will be abandoned in place.		
2018118131	Eastside Water District	Mustang Creek Flood Control and Managed Aquifer recharge (MAR) Project	The project will operate within the existing flood control structures of the Mustang Creek Project build by the US Department of Agriculture in 1981, increasing flood protection capacity by enhancing groundwater recharge of flood waters with the installation of dry wells or similar improvements.	NOE	11/7/2018
2018118135	Parks and Recreation, Department of	Replace Sewer Lift Station	The project proposes to remove a deteriorated lift station at the Basalt campground within San Luis Reservoir State Recreation Area and replace it with a new lift station in the existing footprint. Work includes removal and replacement of existing lift station vault and appurtenances including access hatches, electrical panel, vent, valves, duck-work, and exhaust fan. Work will: NOTE: See NOE for full details.	NOE	11/7/2018
2018118136	Parks and Recreation, Department of	Ramp Replacement and Parking Improvements Geotechnical Investigation	Conduct a soils investigation in two locations around the existing boat ramp and parking lot at the San Luis Creek Boat Ramp located in the San Luis Reservoir State Recreation Area, to record the soils conditions discovered, for future analysis and construction work. Work will core two, 3-inch holes with an auger to a depth of up to 40 feet in the boat ramp area and up to five in the proposed parking area to determine the type and quality of the soil located at the facility. Specific repairs identified through the testing process will be subject to further review under CEQA. The holes will be backfilled with soil cuttings and cement grout. Contractor will spread excess soil cuttings in adjacent undeveloped areas away from the waterways.	NOE	11/7/2018
2018118085	Caltrans #10	Garza's Creek DO (10-1K440)	The California Department of Transportation (Caltrans) proposes and immediate scour mitigation work on the right and left structures of Garza's Creek (#39 0181R&L) bridges located on Interstate5 in Merced County at PM 32.1. The September 2018 bridge inspection and evaluation revealed the over exposure of pile footings due to scour, which become very close to the critical unbraced length of the pile. The purpose of this project is to reduce the risk of bridge failure sue to scour. The need for this project is to prevent and mitigate the loss or impairment of life, property or essential public services.	NOE	11/5/2018
2018111010	Los Banos Unified School District	Volta Elementary School Modular Classrooms and Facilities Expansion Project	The project entails adding the following facilities to the existing Volta Elementary School campus: eleven modular classroom buildings; a 14-ft high, 25,000-gallon capacity water tank; an approx 4,000 sf, 18-ft high lunch canopy structure; and an approx 15,000 sf storm drainage basin (average depth of 8 ft) secured by a screened fencing system. Additionally, a softball field currently located in the southwest corner of the campus would be relocated toward the center of the campus. The project would not expand or otherwise change the boundaries of the existing campus.	CON	11/5/2018
2018108730	Los Banos, City of	Howard Mini Storage Site Plan Review #2018-03	Site Plan Review (SPR) #2018-03 and Conditional Use Permit (CUP) #2018-11 for the development of a mini storage facility consisting of five (5) storage stuctures with an attached office space to one building totaling 14,300 square-feet and associated utility and land improvements.	NOE	10/29/2018
2005071027	Los Banos, City of	Spadafore-Glannone Area Plan	Vesting Tentative Tract Map #2018-03 to allow the subdivision of 31.9 acres into 151 low density & medium density residential lots.	NOD	10/29/2018
2016121016	Merced County	AJ Borba Holsteins Expansion Project	Tony Borba, the applicant, has requested Authority to Construct (ATC) permits to increase the milking cow herd size from 1,100 milk cows to 2,000 milk cows, increase the dry cows from 150 cry cows to 400 dry cows; increase support stock from 1,300 heads to 2,350 heads, add a new rotary milking parlor; and add two new shaded barns. The project will be located at the existing Antonio J Borba Holsteins Dairy at 6275 MItchell Road in Merced County.	NOD	10/25/2018
2018101057	Merced County	Quinley Avenue Bridge Replacement Project	The county proposes to replace the existing bridge structure on an improved horizontal alignment with a 2-lane structure that would meet current design standards. The new bridge would be approx 5.5-ft wider than the existing bridge to accommodate two 11-ft lanes and 5-ft shoulders on each side of the bridge. The new structure would also be approx 16-ft longer. The bridge approaches and roadway profile at the beginning and ending of the bridge would be raised approx 1-ft to meet the hydraulic requirements associated with the creek. In addition, the creek embankment would be covered with rock slope protection to mitigate scour within the limits of the bridge approach fills.	MND	10/24/2018
2018012014	San Joaquin Regional Rail Commission	ACE Extension Lathrop to Ceres/Merced	The project will construct station, parking, and rail infrastructure improvements to expand intercity and commuter rail service to Lathrop, Ceres, and Merced.	NOD	10/23/2018
2018042042	Caltrans #10	Bridge Substructure Repairs	bridge substructure repairs at 13 bridges on various routes in Merced, Mariposa, San Joaquin, and Stanislaus Counties.	NOD	10/23/2018

2018108597	Los Banos, City of	SEC Mercey Springs Rd/Overland Ave Vesting Tentative Parcel Map #2018-01, Site Plan Review #2018-02, & Conditional Use Permit #2018-10	Vesting Tentative Parcel Map (TPM) #2018-01, Site Plan Review (SPR) #2018-02 for the division of a 10.87 acre parcel into 3 parcels and a remainder parcel and for the development of a Shopping Center consisting of 3 commercial structures totaling to 10,195 sf, a parking lot and associated street and public utility improvements.	NOE	10/22/2018
2018108590	Air Resources Board	Community Air Grant-San Joaquin Valley Environmental Justice Collabative	The San Joaquin Valley Environmental Justice Collaborative (made up of the Central California Asthma Collaborative, Central Valley Air Quality Coalition, and the Central California Environmental Justice Network) will use Community Air Grant funds to develop and disseminate bilingual educational materials about AB 617, organize community meetings, support community participation in the public AB 617 process through the establishment of a steering committee (San Joaquin Valley Steering Committee). They will use grant funds to help draft community needs assessments and local emission reductions plans for CARB selected communities in the region, and select two or more additional communities for their own monitoring.	NOE	10/22/2018
2018098475	Emergency Services, Office of	Seismic Monitoring Station	This new station will contribute to the CA Earthquake Early Warning System (CEEWS) designed to potentially save thousands of lives during a large earthquake, prevent critical infrastructure damage and expedite recovery following a large earthquake. The network to which this sensor is connected will contribute real-time data to accurately record and warn people of strong shaking due to earthquakes in the region, and help provide records of ground motion that would be immense scientific, engineering and public safety value. Under a ten-year lease with property owner, UC BSL plans to install and operate an outdoor seismic monitoring station at the Lat/Long location noted above. Three-day installation will take place in a roughly 36-sq. ft. area, to install two structures: 1. 4'x3'x10" sensor vault set on a 6" concrete base, with two attached PVC-pipe postholes (10" diameter) running from center of vault, to a maximum of 10' into the ground, leading to two seismometers (1 strong motion accelerometer and 1 broadband seismometer); 2. 4'x3'x6" concrete base on which a battery box, solar panel equipment, antenna mounts, and communications equipment are housed, and 3. 10'x15'x5" fence around site, with fence posts placed 1' deep in 4" diameter holes. A flexible conduit 1' deep and 5" wide will connect the two structures. Grounding rods will be inset next to the equipment to protect the site from lighting strikes. Holes for the vault, solar panel mount, and antenna and fence poles will be dug by a small backhoe or hand-operated auger. Access to site is entirely by existing roads and trails. There are no hazardous substances involved. If needed, a small generator (~8 KW) will be used to power a hand-loaded concrete mixer and any other tools needed for the work. A detailed description, schematic and photos are in Attachment 1.	NOE	10/21/2018
2018101047	Parks and Recreation, Department of	Gonzaga Ridge Wind Repowering Project	Wind repowering project includes decommissioning existing wind turbines in Pacheco State Park and replacing with up to 40 wind turbines and ancillary infrastructure.	NOP	10/19/2018
2018108403	Fish & Wildlife #4	Phillips 66 - Line 200; Digs 254 and J114,3600 - Pipeline Anomaly Investigation and Repair (project) (Streambed Alteration Agreement No. 1600-2018-0147-R4)	The California Department of Fish and Wildlife has executed Streambed Alteration Agreement number 1600-2018-0147-R4, pursuant to Section 1602 of the Fish and Game Code to Phillips 66 Pipeline, LLC.	NOE	10/16/2018
2018108281	Water Resources, Department of	California Aqueduct Reach 2B Erosion Repairs	SLFD will backfill and compact portions of the Aqueduct embankments and the Aqueduct road at MP 60.85R, MP 60.70R, MP 60.41L, MP 55.15R, MP 51.87R, MP 49.75R, and MP 47.85R that have eroded due to runoff. Up to 200 feet of the existing roads upstream and downstream of the erosion sites will be graded. Fill material will come from the spoil piles located at MP 62.00R and from SLFD Headquarters. Approximately 50 cubic yards of fill material will be used for repairs at MP 51.87R; all other erosion repair sites will use approximately 10 cubic yards of fill. State Water Project Contractors will benefit. NOTE: See NOE for full details.	NOE	10/11/2018
2018101015	Los Banos, City of	Sunrise Ranch Vesting Tentative Tract Map 2017-03	Stonefield Communities (applicant) is proposing to subdivide a 43.4+/- acre parcel into 197 single-family residential lots, ranging in size from 6,000 sf to 15,396 sf. The proposed lots will be subdivided and developed in accordance with Title IX. Chapter 3, article 6, of the city's zoning ordinance.	MND	10/5/2018
2018101013	Los Banos, City of	Los Banos Police Station CEQA	The Police Department proposes to consolidate operations within a new 35,000 sf building located at 1111 G St, Los Banos. Development would include offices, new jail cells, parking, and	Neg	10/5/2018

			would house animal control and logistical facilities such as communications.		
2018108027	Water Resources, Department of	California Aqueduct MP 71.27L Communications Cable Testing and Repair	B&B Communications will excavate, inspect, test, and possibly replace the existing DWR communication cable splice case at MP 71.27L. About 3 cubic yards will be excavated from an approx. 5-foot-wide by 5-foot-long by 3-foot-deep area. Once the area is excavated, the cable splice case will be inspected for corrosion and the cable will be tested. The existing splice case will be removed and a new one will be installed using hand tools. If the cable needs to be replaced, up to 330 feet upstream and downstream of the splice case will be excavated to remove and replace the cable. Once work is complete, the excavated area will be backfilled and compacted and the area will recontoured to its original conditions.	NOE	10/2/2018
2018091047	Merced County	Winton Community Plan Update	The proposed project will serve as the long-range vision and land use strategy plan for guiding development within the unincorporated Community of Winton in Merced County. In addition to land use, the community plan update addresses circulation, noise, and public services. In addition, a community character and design guidelines chapter is included. The proposed community plan update does not include any specific development projects.	NOP	9/26/2018
2018098353	Ballico-Cressey School District	Modular Classroom and Site Improvements	The Project includes demollition of one vacant residential family dwelling and non-compliant parking. The Project includes site improvements consisting of a new student drop off, bus drop off, centralized utility yard, new parking lot, path of travel improvements and landscaping. The project includes the construction of one pre-fabricated building with concrete slab/foundation and underground utilities.	NOE	9/17/2018
2013101071	Merced County	Wright Solar Park Conditional Use Permit Application CUP 12-017	This proposed project involves the construction, operation, and decommissioning of a 200-megawatt photovoltaic solar power-generating facility. The project is composed of a 1,250 acre solar site, including access road improvements. The project will result in permanent and temporry impacts to 1,250 acres of low to moderate quality San Joaquin kit fox and high Swainson's hawk habitat. The project is expected to result in incidental take of San Joaquin kit fox and Swainson's hawk, which are designated as threatened species under the California Endangered Species Act. the ITP referenced above as issued by CDFW authorizes incidental take of species listed under CEQA that may occur as a result of project implementation.	NOD	9/14/2018
2018098293	Water Resources, Department of	Storage and Conveyance of Merced Irrigation District 2018 Short-Term Water Transfer	Kern County Water Agency has requested that DWR store and convey up to 20,000 acre-feet of transfer water from Merced Irrigation District. MID will release the transfer water from Lake McClure (New Exchequer Reservoir) on the Merced River. MID's Point of Transfer will be DWR's Cressy gage on the Merced River. The transfer water will flow to the Sacramento-San Joaquin Delta, where it will be pumped by DWR at the State Water Project Banks Pumping Plant and conveyed to KCWA's service area.	NOE	9/13/2018
2018091025	Livingston, City of	Livingston 1, 2, 3 - TCP Removal Treatment System Project	The city plans to make several improvements to increase the city's water system capacity and improve centralized proposed trichloropropane treatment. Specifically, the project will consist of installing new pipeline between existing Wells 8, 9, 13, and 17 and the proposed centralized treatment facilities; new treatment trains to the existing TCP centralized treatment facility; and a new treated water storage tank and booster pump station. Construction is anticipated to start in summer 2019 and will be completed by 2021. Existing water service will not be impacted during construction.	MND	9/13/2018
2017071031	Livingston, City of	Livingston Water System Improvement Project	The State Water Resources Control Board is a responsible agency for this project. City intends to construct and operate a water treatment plant to reduce 1, 2, 3-TCP levels in wells #14 and #16 and a pipeline connecting to the city's existing water distribution system. Construction is anticipated to start in August 2018 and finish in August 2019. Existing water service will not be impacted during construction.	NOD	9/13/2018
2018098030	Water Resources, Department of	Agreement among the Department of Water Resources of the State of California, Tulare Lake Basin Water Storage District, Westlands Water District, San Luis Water	Growers within Westlands Water District (WWD) San Luis Water District (SLWD), and Pleasant Valley Water District (PVWD) intend to purchase, and divide between themselves, up to 65,000 acre-feet of pre-1914 Kings River water from J.G. Boswell Company (Boswell), a landowner within TLBWSD. In order to facilitate the delivery of WWD's, SLWD's, and PVWD's acquired water from Boswell to their service areas, TLBWSD proposes to transfer up to 65,000 acre-feet of TLBWSD's approved SWP Table A water (TLBWSD's Table A water) to WWD, SLWD, and PVWD. In exchange, up to 65,000 acre-feet of Boswell's pre-1914 Kings River water will be delivered to TLBWSD for use in its service area. The delivery of TLBWSD's Table A water to WWD, SLWD, and PVWD is covered under the	NOE	9/4/2018

			2018 Consolidated Place of Use Order (Order) approved by the State Water Resources Control Board and must be completed before the Order expires on July 1, 2019.		
2018098029	Water Resources, Department of	Agreement among the Department of Water Resources of the State of California, Tulare Lake Basin Water Storage District, Westlands Water District, San Luis Water	Growers within Westlands Water District (WWD), San Luis Water District (SLWD), and Pleasant Valley Water District (PVWD) intend to purchase, and divide between themselves, up to 65,000 acre-feet of pre-1914 Kings River water from J.G. Boswell Company (Boswell), a landowner within TLBWSD. In order to facilitate the delivery of WWD's, SLWD's, and PVWD's acquired water from Boswell to their service areas, TLBWSD proposes to transfer up to 65,000 acre-feet of TLBWSD's approved SWP Table A water (TLBWSD's Table A water) to WWD, SLWD, and PVWD. In exchange, up to 65,000 acre-feet of Boswell's pre-1914 Kings River water will be delivered to TLBWSD for use in its service area. The delivery of TLBWSD's Table A water to WWD, SLWD, and PVWD is covered under the 2018 Consolidated Place of Use Oder (Order) approved by the state Water Resources Control Board and must be completed before the Order expires on July 1, 2019.	NOE	9/4/2018
2018092003	San Joaquin Valley Air Pollution Control District	2018 PM2.5 Attainment Plan	The 2018 PM2.5 Attainment Plan presents the San Joaquin Valley Air Pollution Control District's strategy for achieving attainment for the 1997 PM2.5 Standard (24-hour 65 ug/m3 and annual 15 ug/m3), 2006 Standard (24-hour 35ug/m3), and the 2012 PM2.5 Standard (annual 12 ug/m3) as identified under the federal Clean Air Act.	Neg	9/4/2018
2000121003	Merced County	Campus Parkway Project	To remove an existing private bridge and to construct three new bridges crossing Black Rascal creek. The northbound bridge will be single span, 38.5 feet long and 39 feet wide, and the southbound bridge will be single span, 38.5 feet long and 53.5 feet wide. The third bridge will be a private bridge to replace the existing private bridge and will be constructed just downstream of the proposed two new bridges. The new private bridge will be single span, 38.5 feet long and 17 feet wide.	NOD	9/4/2018
2018042042	Caltrans #10	Bridge Substructure Repairs	Caltrans proposes to implement various preventative maintenance measures to repair scour on the substructures, and to rehabilitate elements of the superstructure on 13 bridges in Merced, Mariposa, San Joaquin, and Stanislaus Counties. The project would maintain structural integrity and delay or minimize major rehabilitation of the structures.	FIN	8/31/2018
2018088647	California State Lands Commission	General Lease - Public Agency Use - PRC 4175.9	Authorize issuance of a General Lease - Public Agency Use beginning Feb 1, 2018, for a term of 25 years, for an existing Bridge crossing the Merced River.	NOE	8/31/2018
2018042042	Caltrans #10	Bridge Substructure Repairs	Caltrans proposes to implement various preventative maintenance measures to repair scour on the substructures, and to rehabilitate elements of the superstructure on 13 bridges in Merced, Mariposa, San Joaquin, and Stanislaus Counties.	NOD	8/31/2018
2015061097	Merced Irrigation District	Lower Merced River Boat Access Ramp Project	The California of FIsh and Wildlife has executed an amendment to Streambed Alteration Agreement number 1600-2016-0004-R4, issued to Merced Irrigation District. The project includes activities related to the installation of a non-motorized boat launch, and the construction of an asphalt parking lot, interpretive kiosk, concrete curb; gutter, side walk, picnic table base and a two unit vault restroom, on the north side of the Merced River. The amendment addresses changed in the number of trees to be replaced on the project property to replace trees removed for the project.	NOD	8/29/2018
2018088509	Turlock Unified School District	Change to Level 1, 2, and 3 Residential and Commerical/Industrial Development Fees	The fees provide for the school construction required to address the unfunded needs resulting from new development. The fees are authorized by statue and made applicable to residential & commercial development.	NOE	8/27/2018
2018088515	Water Resources, Department of	Los Banos Detention Dam Geotechnical Borings for Powerline Expansion	Terracon has requested encroachment permission from DWR to conduct geotechnical soil sampling for a future expansion of a power line. Samples will be collected using a drill rig. One borehole (8 inches in diameter and 40 feet deep) will be drilled at an appropriate location within an area 100 feet of the coordinates 36.9818, - 120.9736. The exact location of the boring will be determined by Terracon personnel, but will avoid any sensitive environmental resources. Soil samples will be extracted every 5 feet during drilling. Once the samples have been collected, the borehole will be backfilled per drilling specifications. Terracon will benefit.	NOE	8/27/2018
2018088510	Turlock Unified School District	Capital Facilities Financing Plan	The Capital Facilities Financing Plan Projects future enrollment and the estimated costs for facilities to meet the enrollment needs. The plan includes proposed projects, estimated project costs, and an analysis of available funds and funding options. The plan serves as a guide to future development.	NOE	8/27/2018
2017051047	Merced County Association of	Draft Program EIR - Draft 2018 Regional	The 2018 RTP/SCS identifies the Merced region's transportation needs and issues, sets forth an action plan of projects and	NOD	8/22/2018

	Governments	Transportation Plan/Sustainable Communities Strategy (RTP/SCS)	programs to address the needs consistent with a set of goals and policies, and documents the financial resources to implement the plan. The 2018 RTP/SCS also includes a SCS prepared to address requirements set forth in SB 375, which requires that MCAG prepare an SCS that provides an integrated land use and transportation plan to meet GHG emission reduction targets set forth by CARB.		
2018081058	Merced County	Oliveira Dairy Expansion Project	The applicant proposes to expand the existing dairy to house 2,500 milk cows and 400 dry cows, an increase of 2,182 animals from existing numbers. Approximately 215,000 net square feet of new supporting buildings and structures would be constructed following the demolition of approximately 6,400 square feet of existing structures. Approximately seven acres of cropped acreage would be converted to active dairy facilities.	NOP	8/21/2018
2018022018	Caltrans #10	San Joaquin & Merced County Drainage Restoration	restore/replace drainage facilities at various locations on I-5, SR 12 and Sr 52 in San Joaquin and Merced counties	NOD	8/17/2018
2018088238	State Water Resources Control Board	Phillips 66 Line 200 Dig 254 Anomaly Investigation and Repair Project	The project consists of visually inspecting and repairing an anomaly along the crude oil pipeline. Project activities include excavation within a wetland to expose and repair the pipeline.	NOE	8/13/2018
2018012014	San Joaquin Regional Rail Commission	ACE Extension Lathrop to Ceres/Merced	To enhance intercity and commuter rail service and to promote greater transit connectivity between the Central Valley and the Bay Area, SJRRC is proposing to expand ACE service to Ceres and Merced. Physical Improvements would include addition of station, parking and key track/infrastructure improvements and commencement of initial service of expansion of existing trains, construction of additional track improvements, such as the addition of a new main track, at specific areas of train congestion, and possibly additional parking improvement necessary because of increased ridership, which would allow further expansion of service beyond the initial service.	NOD	8/7/2018

[First] [Next] **[Previous]** [Last]

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