Austin Road Bridge Scour Mitigation Project NES

Natural Environment Study

Austin Road Bridge Scour Mitigation Project
(Bridge No. 29C-259, across the North Fork of South Littlejohns Creek)
Southeast of the City of Stockton, San Joaquin County, California
BPMP-5929(223)

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Caltrans

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April 2014

STATE OF CALIFORNIA
Department of Transportation

San Joaquin County Department of Public Works

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Summary

The San Joaquin County Department of Public Works (County) proposes to develop a uniform channel section supporting Austin Road Bridge with scour countermeasures to prevent channel degradation of the North Fork of South Littlejohns Creek (identified hereafter as South Littlejohns Creek). The proposed project is located in San Joaquin County, southeast of the City of Stockton, south of Arch Road, and north of the Forward Landfill, where Austin Road Bridge (Bridge No. 29C-259) crosses South Littlejohns Creek. The purpose of the project is to create a smooth channel transition throughout the project area and reduce channel degradation at abutments and piers that lead to bridge instability.

This Natural Environment Study (NES), which has been prepared according to the Caltrans' Guidance Template (Caltrans 2012), provides an overview of impacts to sensitive biological resources that could occur in the Biological Study Area (BSA) as a result of the project, and includes measures to mitigate for such impacts. It also provides a list of permits that may be required.

The 0.98-acre BSA includes the project footprint, which includes 0.12 acre of open water habitat within South Littlejohns Creek, 0.46 acre of ruderal habitat along the banks of South Littlejohns Creek, 0.38 acre of developed land along Austin Road Bridge and the county right of way, and 0.02 acre of vineyard.

The project would result in permanent direct effects to South Littlejohns Creek, resulting from excavation of the channel to create a smooth channel transition throughout the project area, and the placement of rock slope protection (RSP) to reduce channel degradation. As a result of associated construction, the project could temporarily directly affect the following special-status wildlife species: northwestern pond turtle (*Actinemys marmorata marmorata*), burrowing owl (*Athene cunicularia*), cliff swallows (*Hirundo pyrrhonota*), pallid bat (*Antrozus pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), and greater western mastiff bat (*Eumops perotis californicus*). The project could temporarily indirectly affect the following special-status bird species: Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), other nesting raptors, and loggerhead shrike (*Lanius ludovicianus*). The project is not expected to affect special-status plants.

Because the project could potentially affect the biological resources listed above, the following permits will be required: Clean Water Act (CWA) Section 404 permit from the

U. S. Army Corps of Engineers (USACE), CWA Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB), and a Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) under Section 1602 of the California Fish and Game Code.

Best Management Practices and avoidance and minimization measures, as discussed in Chapter 4 of this NES, will be implemented to avoid permanent impacts to biological resources in the BSA. No permanent loss of any special-status species with potential to occur in the BSA or in the vicinity of the BSA or their habitat is expected to result from project implementation. Implementation of the project would not contribute substantially to the loss or degradation of biological resources in the area or region. Therefore, no cumulative effects on biological resources are expected.

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List of Abbreviated Terms

BMP	Best Management Practice
BSA	Biological Study Area
CalIPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
EO	Executive Order
FESA	Federal Endangered Species Act
ft	foot/feet
FHWA	Federal Highway Administration
GGS	giant garter snake
Management Plan	National Invasive Species Management Plan
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NWP	Nationwide Permit
OHWM	ordinary high water mark
RSP	rock slope protection
RWQCB	Regional Water Quality Control Board
SWRCB	State Water Resource Control Board
USACE	U.S. Army Corps of Engineers
USGS	United States Geological Survey
USFWS	U.S. States Fish and Wildlife Service
WDR	waste discharge requirement

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Chapter 1. Introduction

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by the California Department of Transportation (Caltrans) under its assumption of responsibility pursuant to National Environmental Policy Act (NEPA) Assignment MOU (23 USC 326).

1.1. Project History

Recent history has shown that the channel bed along South Littlejohns Creek has experienced minor erosion in the upper reaches of the creek, increasing the side slopes. Streambed erosion increased due to a constriction of the channel from the bridge abutments and piers. The purpose of the project is to create a smooth channel transition throughout the project area and to reduce channel degradation at abutments and piers that lead to bridge instability.

1.2. Project Description

Austin Road Bridge is situated southeast of the City of Stockton in a rural area of the county that is surrounded by agricultural land (Figure 1). The project is located on the East Stockton U.S. Geological Survey (USGS) 7.5-minute quadrangle (Figure 2).

The proposed project will involve the placement of rock slope protection (RSP) in the form of riprap beneath the bridge and along the adjacent embankments to address problems with scour along the stream channel that is exposing the bridge footings and bents to potential damage. Because the foundations are relatively shallow, smaller rocks will be placed underneath the bridge deck to avoid undercutting the bridge footings; however, because of the high velocities, concrete baffles will be required to effectively hold the small rocks in place. The proposed concrete baffles will be staggered to allow a nonconcrete path for riparian wildlife. Staging areas and temporary construction easements will be needed along the east and west edges of Austin Road to install the RSP. Access to the work site will be from Austin Road and adjacent San Joaquin County Department of Public Works (County) operational roads; no new access roads will be necessary and no utilities will be relocated. Staging areas will be within easements on graded and graveled surfaces immediately adjacent to the bridge. Construction activities for the project will include subsurface disturbance. Construction equipment used will be a large front-loader on creek banks and multi-size excavators in the channel bottom. The anticipated approximate depth of excavation is 4.5 feet (137 centimeters). All soil

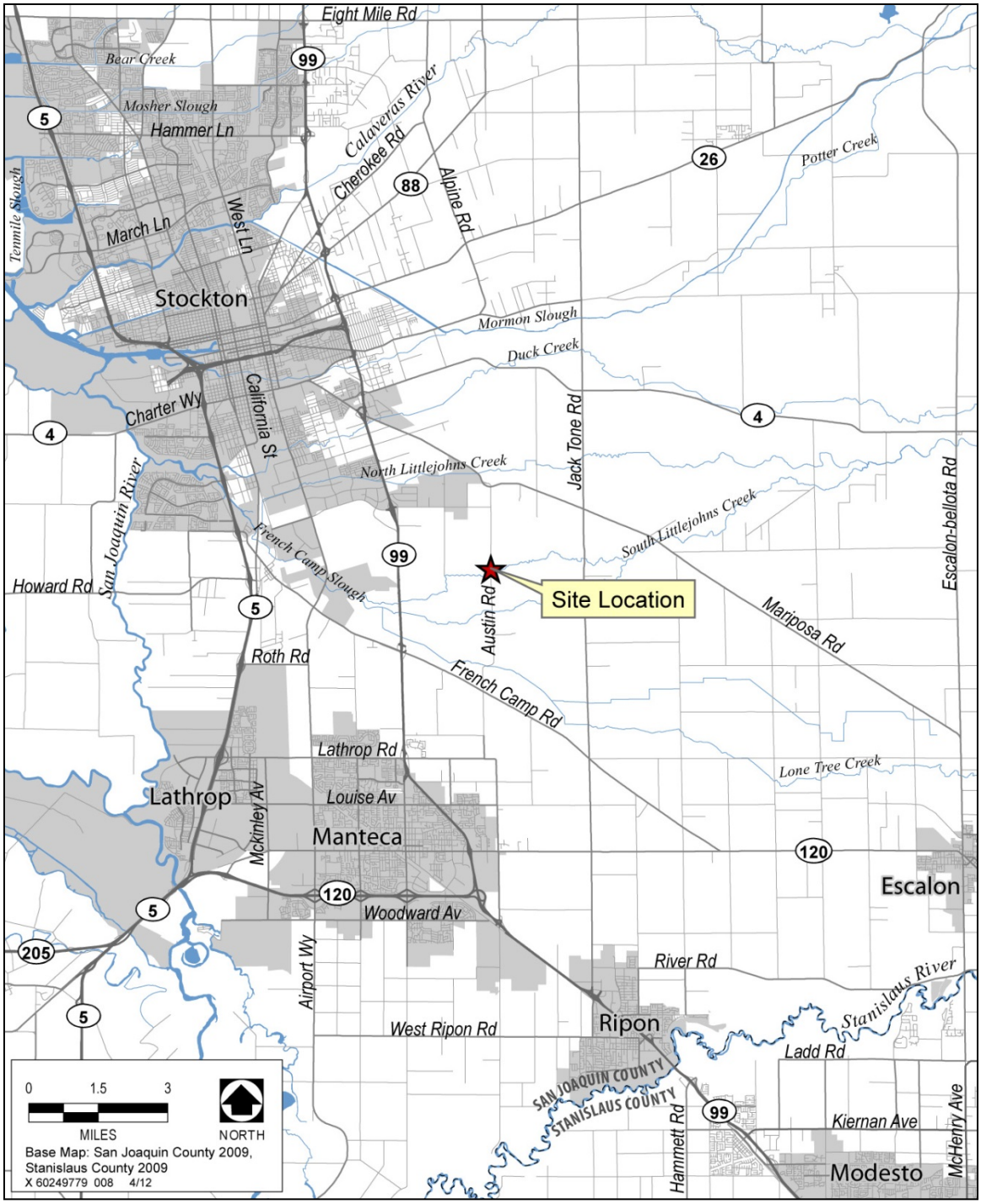

Figure 1. Project Vicinity

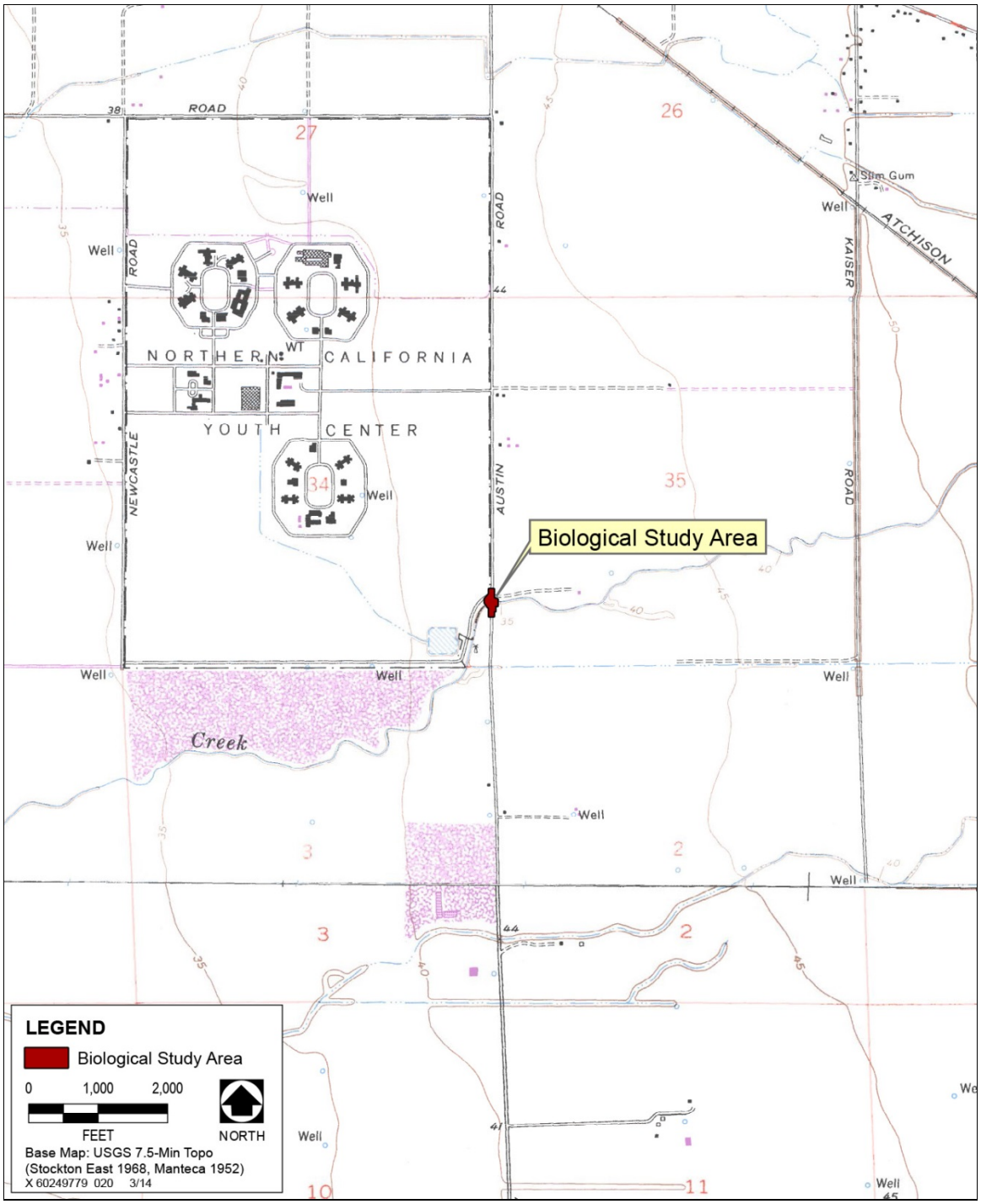

Figure 2. Project Location

excavated during the project is anticipated to have been previously disturbed during bridge construction. The project impact area was determined based on planned horizontal extent of project-related, ground-disturbing activities, and anticipated maximum extent of vertical ground disturbance. The project impact area also includes access and staging areas for construction activities.

The anticipated window for working within the limits of the low-flow channel is from September 1 to October 15. It is possible that the contractor can access the low-flow channel at an earlier date if irrigation flows are reduced. Construction activity in the low-flow channel will cease by October 15, before the rainy season starts. Work on the creek banks will extend into the rainy season, but equipment will be removed from the channel before any forecasted storm event. Construction is expected to begin September 1, 2015.

Chapter 2. Study Methods

2.1. Regulatory Requirements

2.1.1. Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as threatened or endangered (16 USC 1533[c]). The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over plants, wildlife, and resident fish, while the National Marine Fisheries Service (NMFS)[1] has jurisdiction over anadromous fish and marine fish and mammals. In addition to listed species, the USFWS publishes a list of candidate species. Candidate species are those for which the USFWS has sufficient biological information to support a proposal to list as endangered or threatened. Species on the candidate list are not protected under FESA, but they receive special attention during environmental review.

Section 7 of FESA outlines procedures for federal interagency cooperation and participation in the conservation and recovery of federally listed species and designated critical habitat. Section 7(a) (2) requires federal agencies to consult with other federal agencies with regulatory authority to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species, destroy, or adversely modify designated critical habitat. Critical habitat is an area occupied by a listed species that has the physical or geographical features essential to the conservation of the species. Critical habitat can also be unoccupied habitat that is essential to the conservation of the species.

Section 9 of FESA prohibits the "take" of federally listed species. Take is defined under FESA in part, as killing, harming, or harassment of such species. Under federal regulations take is further defined to include habitat modification or degradation where it actually results in death or injury to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. USFWS can issue an incidental take statement that includes reasonable and prudent measures and terms and conditions that are mandatory actions to minimize the effects of the take.

[1] Since the project will avoid NMFS jurisdiction, the FESA discussion will focus on the USFWS only.

2.1.2. Sections 404 and 401 of the Clean Water Act

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into waters of the U.S.[2] under Section 404 of the Clean Water Act (CWA). Wetlands are defined as areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands falling under the USACE jurisdiction must demonstrate the presence of three specific wetland parameters: 1) hydric soils, 2) hydrophytic vegetation, and 3) wetland hydrology.

Wetlands include swamps, marshes, bogs, and similar areas; lakes, rivers, and streams are typically defined as "other waters of the United States." Jurisdictional limits of these features are typically defined by the ordinary high water mark (OHWM), which is the line or sudden change in slope on the shore or bank that is established by the fluctuations of water and indicated by physical characteristics such as a clear natural line, shelving, a change in soils, a lack of woody or terrestrial vegetation, or other determining characteristics.

Section 404 prohibits the discharge of dredged or fill material into waters of the United States, (including wetlands) without a permit from the USACE. The regulations and policies of the USACE, U.S. Environmental Protection Agency, and USFWS mandate that the filling of wetlands be avoided unless it can be demonstrated that no practicable alternatives (to filling wetlands) exist. The four basic processes for obtaining Section 404 authorization include: 1) Nationwide Permit (NWP), which covers specific categories of activities; 2) Regional Permit; 3) Letter of Permission; or 4) Individual Permit.

Section 401 of the CWA requires that an applicant applying for a USACE permit for the discharge of dredge or fill material must also obtain a water-quality certificate from the appropriate state agency that states that their activity is consistent with the state's water

[2] The term "waters of the US," as defined in Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]), includes: (1) all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are 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), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce, including any such waters that are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or which are used or could be used for industrial purposes by industries in interstate commerce; (4) all impoundments of waters otherwise defined as waters of the U.S. under the definition; (5) tributaries of waters identified in numbers (1) through (4); (6) territorial seas; and (7) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in numbers (1) through (6).

quality standards and criteria. The conditions in the certificate are incorporated into the USACE permit. In California, there are nine Regional Water Quality Control Board (RWQCB) regions, and authority to grant the certificate is delegated to the relevant regional office. The state has a policy of no-net-loss of wetlands and typically requires mitigation for impacts to wetlands before it will issue a water quality certification.

2.1.3. Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC, Section 703-711; 40 Stat. 755), as amended, prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act applies to whole birds, parts of birds, and bird nests and eggs. The MBTA does not provide protection for habitat of migratory birds, but does prohibit the destruction or possession of individual birds, eggs, or nest in active use without a permit from USFWS.

2.1.4. Executive Order 13112 Invasive Species

Executive Order (EO) 13112 (February 3, 1999) directs all federal agencies to prevent and control introductions of invasive species in a cost-effective and environmentally sound manner. EO 13112 established a national Invasive Species Council made up of federal agencies and departments and a supporting Invasive Species Advisory Committee composed of state, local, and private entities. The Invasive Species Council and Advisory Committee oversee and facilitate implementation of the EO, including preparation of a National Invasive Species Management Plan (Management Plan). The Management Plan recommends objectives and measures to implement the EO and to prevent the introduction and spread of invasive species. The EO and directives from the Federal Highway Administration (FHWA) require consideration of invasive species in National Environmental Policy Act (NEPA) analyses, including their identification and distribution, their potential impacts, and measures to prevent or eradicate them.

2.1.5. California Endangered Species Act

Under the California Endangered Species Act (CESA), the CDFW maintains a list of threatened and endangered species. In addition, CDFW maintains lists of candidate species, and species of special concern. Candidate species are those species under review for addition to either the list of threatened or endangered species. Section 2080 of the Fish and Game Code prohibits take of state-listed species; however, CDFW may, pursuant to Section 2081(b) issue a permit for the take of state-listed species incidental to otherwise lawful activities, except in the case of fully-protected species. Impacts associated with the authorized take shall be minimized and fully mitigated. The measures

required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking on the species.

2.1.6. Porter-Cologne Water Quality Act

Under the Porter-Cologne Water Quality Act (PCA), "waters of the state" fall under the jurisdiction of the State Water Resource Control Board (SWRCB) and RWQCBs. RWQCBs must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control non-point and point sources of pollution to achieve and maintain these standards. In most cases, the RWQCBs seeks to protect these beneficial uses by requiring the integration of water quality control measures into projects that will result in discharge into waters of the state. Projects that affect wetlands or waters of the state must meet waste discharge requirements (WDRs) of the RWQCBs, which may be issued in addition to a water quality certification under Section 401 of the CWA. This jurisdiction includes waters (including wetlands and isolated wetlands) the USACE deems to be isolated or non-jurisdictional with respect to the Solid Waste Agency of Northern Cook County (SWANCC) decision (see discussion above under Sections 404 and 401 of the Clean Water Act). For waters of the state not subject to Section 404, the SWRCB and RWQCB would authorize impacts by issuing a WDR or in some cases, a waiver of WDR.

2.1.7. Section 1602 of the California Fish and Wildlife Code

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW, pursuant to Section 1602 of the Fish and Game Code. Section 1602 makes it unlawful for entity (i.e., any person, state or local governmental agency, or public utility) to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake without first notifying CDFW of such activity. The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFW's jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife. A CDFW Streambed Alteration Agreement must be obtained for any project that would result in an impact to a river, lake, or stream that would adversely affect any fish or wildlife resource.

2.1.8. Section 3503 of the California Fish and Wildlife Code

Section 3503.5 of the Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds-of-prey in the orders Falconiformes or Strigiformes..." These orders include hawks, owls, eagles, and falcons. The loss of an active nest is considered a violation of this code by CDFW. This statute does not provide for the issuance of any type of incidental take permit. Section 3503 prohibits unlawful take, possession or needless destruction of the nest or eggs of any bird.

2.1.9. CEQA Guidelines Section 15206

With respect to biological resources, this section specifies that a project shall be deemed to be of statewide, regional, or area wide significance if it would substantially affect sensitive wildlife habitats, including but not limited to riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species.

2.1.10. CEQA Guidelines Section 15380

This section provides that a species not listed on the FESA or CESA may be considered rare or endangered under specific criteria. These criteria have been modeled after the definition in FESA and CESA. Section 15380 was included in the CEQA Guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a candidate species that has not yet been listed by either USFWS or CDFW. Thus, Section 15380 provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

An example would be the vascular plants considered by CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR). The CDFW system includes six rarity and endangerment ranks for categorizing plant species of concern, which are summarized as follows:

- CRPR 1A: Plants presumed extinct in California
- CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
- CRPR 2A: Plants presumed to be extinct in California, but more common elsewhere
- CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
- CRPR 3: Plants about which more information is needed – A review list
- CRPR 4: Plants of limited distribution – A watch list

In general, plants ranked as CRPR 1A, 1B, or 2 are considered to meet the criteria of Section 15380.

2.1.11. Native Plant Protection Act

This act (codified in Fish and Game Code Sections 1900-1913) is intended to preserve, protect, and enhance endangered or rare native plants in the state. The act directs CDFW to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more cause. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. Under the act, the Fish and Game Commission may adopt regulations governing the taking, possessing, propagation, or sale of any endangered or rare native plant.

2.2. Studies Required

Biological resources that could potentially be affected by the project were initially identified through a review of pertinent literature and database searches (see Appendix A). Recent and historical reports of special-status species occurrences in the vicinity of the BSA were identified through a search of CDFW's California Natural Diversity Database (CNDDB) (CDFW 2014) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2014). The Biological Study Area (BSA) is located within the Stockton East 7.5-minute United States Geological Survey (USGS) quadrangle. Special-status species database searches were conducted for the Stockton East quadrangle and the following eight surrounding quadrangles: Waterloo, Linden, Peters, Avena, Manteca, Lathrop, Stockton West, and Terminous.

Additional information on biological resources with potential to occur in or near the BSA was obtained through a review of the following resources:

- Search of USFWS Sacramento Fish and Wildlife Office Threatened and Endangered Species Database of Listed Plant And Animal Species That Occur In or May Be Affected By Projects In The Stockton East USGS 7.5-Minute Quadrangle (USFWS 2014).
- Species Accounts for Plants and Animals Listed Under the Federal Endangered Species Act (USFWS 2012).
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2011a).

- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2011b)
- List of Fully Protected Animals in the State of California (CDFW 2012a).
- Hierarchical List of Natural Communities by Holland Type (CDFW 2010)

The BSA consists of a 0.98-acre project impact area, comprised of the bridge and adjacent access and staging areas, and a 100-foot valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB) habitat survey buffer. Following a review of background information, an AECOM biologist conducted a site survey of the BSA. The purpose of the site survey was to characterize biological resources in the BSA and to determine the potential for sensitive biological resources to occur in the BSA. The biologist surveyed the entire BSA on foot, described all plant communities encountered, and recorded all plant and wildlife species observed. The biologist mapped the location and extent of vegetation communities and wildlife habitats in the BSA. Habitats immediately adjacent to the project footprint were also assessed for their potential to support species and natural communities that could be temporarily indirectly affected by project implementation.

Plant species encountered in the BSA that are designated as invasive by the California Invasive Plant Council (CalIPC), or as noxious weeds by the California Department of Food and Agriculture (CDFA) were noted during the reconnaissance survey.

No focused special-status plant surveys were conducted. However, based on the review of background information and the habitats present in the BSA, only one special-status plant species, Sanford's arrowhead (*Sagittaria sanfordii*) was determined to have potential to occur in the BSA. This species would have been detectable during the site reconnaissance survey in its vegetative state, which enables a positive identification if present (i.e. the plant can be identified by its leaves only). The plant was not observed in the BSA. Therefore, it was concluded that no special-status plants are present in the BSA.

Focused wildlife surveys were not conducted as part of the reconnaissance-level biological assessment. The methods employed during the survey would not necessarily rule out the potential presence of some special-status species. However, based on the surveys conducted to date, a review of existing information for the area, and an assessment of habitats on-site, certain special-status wildlife species are not expected to occur or can be entirely ruled out (see Table 1).

A formal wetland delineation and jurisdictional determination for the BSA was conducted concurrently with the site survey. The wetland delineation was conducted in accordance with the procedures outlined in the USACE Wetlands Delineation Manual (Environmental Laboratory 1987) and Supplement for the Arid West (Environmental Laboratory 2008). Locations of potential waters of the United States and waters of the state were recorded and mapped on a 1 inch (”)=50 foot (‘) map of the BSA.

2.3. Personnel and Survey Dates

The reconnaissance-level biological survey and wetland delineation in the BSA were conducted on March 19, 2012 by Shannon Hickey, who has backgrounds in botany and wildlife biology and a B.S. in Ecology and Environmental Policy. Ms. Hickey has more than 10 years of professional experience in conducting natural resource assessments. She is a trained wetland delineator and routinely conducts botanical and wildlife habitat assessments, wetland delineations, plant species inventories, and protocol surveys for special-status wildlife and plants.

2.4. Agency Coordination and Professional Contacts

Kursten Sheridan, former Caltrans staff biologist, coordinated with the USFWS regarding the preparation of the Austin Road Bridge NES. Caltrans will facilitate further coordination with the USFWS in support of this project per Caltrans’ NEPA delegation, as needed.

2.5. Limitations That May Influence Results

No limitations that could influence results were identified. An accurate assessment of the features potentially subject to USACE jurisdiction under the CWA was made from visual observations from the public right-of-way and aerial photograph interpretation. Soil samples were not collected during the reconnaissance survey because the only potential water of the United States identified in the BSA footprint (South Littlejohns Creek) was inundated.

Chapter 3. Results: Environmental Setting

3.1. Description of the Existing Biological and Physical Conditions

3.1.1. Study Area

The BSA for this project consists of the 0.98-acre project impact area, comprised of the bridge and adjacent access and staging areas, as well as a 100-foot VELB habitat survey buffer. Habitats immediately adjacent to the BSA were also assessed for their potential to support species and natural communities that could be indirectly affected by project implementation.

Austin Road Bridge is located in a rural area of San Joaquin County that is characterized by agricultural land. Much of the project footprint consists of ruderal vegetation along the banks of South Littlejohns Creek and disturbed bare ground. A limited amount of roadside vegetation is present within the County right of way parallel to Austin Road. Beyond the right of way is private property characterized by disturbed bare ground and unpaved roads adjacent to agricultural fields to the north and vineyards to the southeast. The project footprint also includes Austin Road, Austin Road Bridge and the associated section of South Littlejohns Creek, which is characterized by open water. Riparian habitat is present immediately outside the BSA, to the southwest along South Littlejohns Creek. A small area of vineyard also is present in the BSA. The location and extent of habitat types in the BSA are shown in Figure 3.

3.1.2. Physical Conditions

The BSA is within the San Joaquin Valley, a region characterized by a Mediterranean climate with hot dry summers and daytime temperatures commonly exceeding 100˚ Fahrenheit and cool rainy winters. The average annual rainfall in the area is approximately 14 inches and the majority of this precipitation falls from November to March. The elevation of the BSA is approximately 35 ft above mean sea level. The topography of the area is flat and the surrounding land uses are agricultural and rural residential.

Littlejohns Creek is tributary to the San Joaquin River via French Camp Slough and the Calaveras River. Approximately 0.12 acre of South Littlejohns Creek is present within the BSA. The channel width or OHWM) under the bridge ranges from 35 to 45 ft.

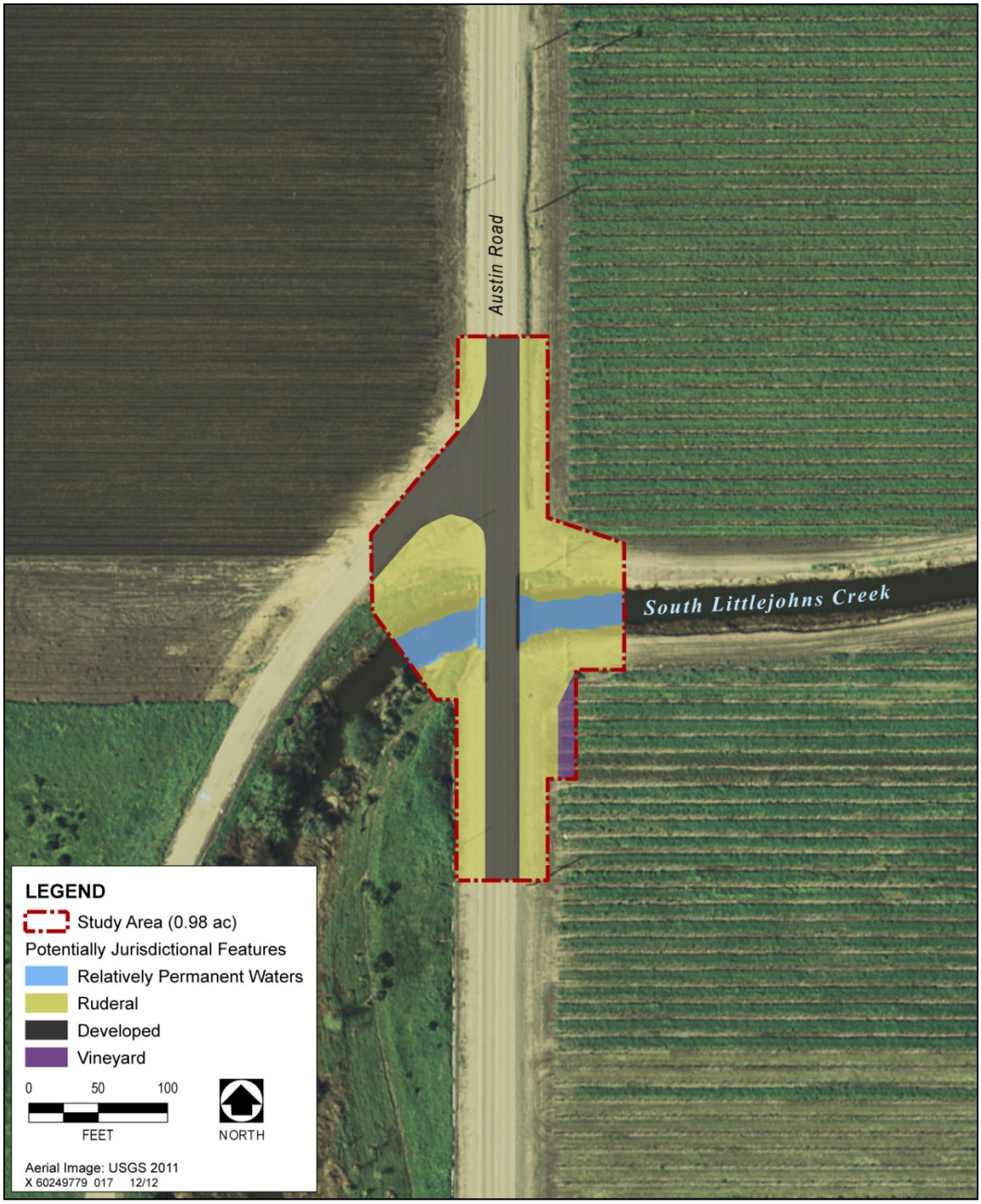

Figure 3. BSA Habitat Types

The BSA includes one soil type described below:

3.1.3. Stockton Clay, Slopes 0-2 percent (map unit 250)

The Stockton series is a deep soil with a hardpan located approximately 40 to 60 inches below the soil surface. Stockton soils formed in alluvium from mixed igneous and sedimentary rock sources. These soils occur in basins and in swales of drainageways and have slopes of 0 to 2 percent. Stockton soils are somewhat poorly drained, runoff is very slow or slow, and permeability is slow. Most areas are artificially drained (NRCS 2009).

3.1.4. Biological Conditions in the BSA

As depicted in Figure 3, the BSA is mainly comprised of ruderal and developed habitats. Open water habitat is present in South Littlejohns Creek. Immediately adjacent to the BSA to the west is a stand of riparian scrub dominated by narrow-leaved willow (*Salix exigua*). Austin Road Bridge provides habitat for bird and bat species as described in detail below and also functions as a migratory corridor for migration between the riparian habitat to the west and agricultural habitat to the east. No elderberry shrubs were observed within the BSA or 100 ft from the boundary of the BSA during the site reconnaissance survey. Therefore, it was concluded that the BSA does not provide potential habitat for the valley elderberry longhorn beetle.

3.1.4.1. VEGETATION COMMUNITIES

Ruderal

Ruderal vegetation in the BSA occurs along the banks of South Littlejohns Creek and adjacent to the dirt roads that border the agricultural fields. Ruderal vegetation in the BSA is characterized by non-native annual grasses and weedy forbs such as Mediterranean barley (*Hordeum murinum* ssp. *gussoneanum*), Italian ryegrass (*Festuca perennis*), blessed milk thistle (*Silybum marianum*), redstem filaree (*Erodium cicutarium*), field mustard (*Brassica rapa*), cocklebur (*Xanthium strumarium*), and poison hemlock (*Conium maculatum*). A few native species, such as saltgrass (*Distichlis spicata*) and mugwort (*Artemisia douglasiana*), were also present along the banks of Littlejohns Creek. The banks and channel of Littlejohns Creek appear to be routinely maintained with periodic vegetation removal and weed control, particularly on the eastern side of Austin Road Bridge. Approximately 0.46 acre of ruderal vegetation occur in the BSA.

Other

In addition to the ruderal community, the BSA includes 0.38 acres of developed area characterized by roads, 0.12 acre of South Littlejohns Creek and a small acreage (0.02 acres) of vineyard.

3.1.4.2. GENERAL WILDLIFE USAGE AND MIGRATION CORRIDORS

Wildlife usage in the BSA includes use by common species that occur in ruderal habitat and species that may use South Littlejohns Creek under the Austin Road Bridge as a corridor for migration between the riparian habitat to the west of the BSA and agricultural habitat to the east. Common wildlife that could use the BSA include gray fox (*Urocyon cinereoargenteus*), western harvest mouse (*Reithrodontomys megalotis*), striped skunk (*Mephitis mephitis*), desert cottontail (*Sylvilagus audubonii*), western fence lizard (*Sceloporus occidentalis*), and common garter snake (*Thamnophis sirtalis*). Austin Road Bridge could provide roosting habitat for bats (*Myotis* spp. and others) and nesting habitat for swallows (*Hirundo* spp. and others).

Bird species observed in the vicinity of the BSA during the reconnaissance-level biological assessment in March 2012 include red-tailed hawk (*Buteo jamaicensis*), house finch (*Carpodacus mexicanus*), song sparrow (*Melospiza melodia*), red-winged blackbird (*Agelaius phoeniceus*), black phoebe (*Sayornis nigricans*), and yellow-rumped warbler (*Dendroica coronata*).

3.1.4.3. AQUATIC RESOURCES

Aquatic resources in the BSA are limited to the section of South Littlejohns Creek that traverses the BSA and can be characterized as open water habitat.

3.1.4.4. INVASIVE SPECIES

Invasive plants are species that are not native to the region, persist without human assistance, and have serious impacts on their introduced environment (Simberloff et al. 1997, Davis and Thompson 2000). The term invasive plant differs from the classification terms nonnative, exotic, or introduced plant because it is (when applied correctly) used only to describe those exotic plant species that displace native species on a large enough scale to alter habitat functions and values. CalIPC maintains a list of species that have been designated as invasive in California (CalIPC 2006).

Poison hemlock is the only plant on the CalIPC list of invasive species (2006) that was identified in the BSA during the reconnaissance survey in March 2012. Additional invasive plant species that were not identifiable at the time of the survey have potential to occur in the BSA.

3.2. Regional Species and Habitats of Concern

3.2.1. Regional Importance

Most of the native vegetation in the region has been removed for vineyard cultivation, agricultural operations, and commercial and residential development. Limited riparian habitat is present along South Littlejohns Creek in the vicinity of the BSA, and along other creeks and agricultural waterways in the area. The portion of South Littlejohns Creek that traverses the BSA appears to be routinely maintained and has become dominated by ruderal vegetation. The willow riparian scrub habitat immediately west of the BSA to the west is confined to a narrow corridor as a result of surrounding agricultural land uses.

3.2.2. Existing Level of Disturbance

Much of the BSA is subject to regular disturbance from surrounding agricultural operations and road maintenance within the County right-of-way on either side of Austin Road.

3.2.3. Habitats of Concern

Habitats of concern include those that are of special concern to resource agencies or are afforded specific consideration through the CEQA, Section 1602 of the California Fish and Game Code, and/or Section 404 of the CWA. The only habitat of concern in the BSA is South Littlejohns Creek.

3.2.3.1. SOUTH LITTLEJOHNS CREEK

South Littlejohns Creek is a perennial creek that traversed the BSA in a southwesterly direction. It is tributary to the San Joaquin River, a traditional navigable waterway, via French Camp Slough and the Calaveras River and therefore is subject to USACE jurisdiction under Section 404 of the CWA. Within the BSA, South Littlejohns Creek is characterized by an open water channel and ruderal vegetation on the banks.

3.2.4. Special-status Species

Special-status species that have been previously documented in the nine quadrangles containing and surrounding the BSA were identified using CDFW's CNDDB (CDFW 2014) and the CNPS Inventory of Rare and Endangered Plants (2014). Additional listed species that could be affected by projects in San Joaquin County were identified using a list generated by the USFWS Threatened and Endangered Species Database (USFWS 2014). Table 1 lists the special-status plant and wildlife species known from the project vicinity, as identified in the database searches. Table 1 also provides information on the listing status, habitats and the rationale for whether or not they might be affected by the

project. Previously documented CNDDB occurrences are shown in Figure 4. The majority of these species are not expected to occur in the BSA because no suitable habitat is present. Because raptors nesting up to 0.25 mile from the project footprint could be indirectly affected by project implementation, these species are considered to have potential to occur if there is suitable habitat within 0.25 mile of the project footprint. Special-status plant and wildlife species that have the potential to occur in the BSA are discussed in Sections 4.2 and 4.3 of this NES. No critical habitat for federally listed species has been designated in or near the BSA.

Table 1. Special-Status Species with Potential to Occur in the BSA

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present (HP)/ Habitat Absent (HA)	Rationale for Occurrence in or near BSA
PLANTS					
Astragalus tener var. *tener*	Alkali milk-vetch	CRPR-1B.2	Playas and vernal pools with alkaline soils or grasslands with adobe clay alkaline soils.	HA	Not expected to occur; suitable habitat not present in the BSA.
Atriplex cordulata var. *cordulata*	Heartscale	CRPR-1B.2	Chenopod scrubs in meadows and seeps.	HA	Not expected to occur; suitable habitat not present in the BSA.
Atriplex joaquiniana	San Joaquin spearscale	CRPR-1B.2	Alkaline soils in chenopod scrub, playas, meadows and seeps, and grasslands.	HA	Not expected to occur; suitable habitat not present in the BSA.
Blepharizonia plumosa	Big tarplant	CNPS-1B.1	Valley and foothill grassland, foothill woodland, chaparral.	HA	Not expected to occur; suitable habitat not present in the BSA.
Brasenia schreberi	Watershield	CRPR-2B.3	Freshwater marshes and swamps.	HA	Not expected to occur; suitable habitat not present in the BSA.
California macrophylla	Round-leaved filaree	CRPR-1B.1	Clay soils in cismontane woodland and valley and foothill grassland.	HA	Not expected to occur; suitable habitat not present in the BSA.
Chloropyron palmatum	Palmate-bracketed bird's-beak	CRPR-1B.1 CE FE	Chenopod scrub in valley and foothill grasslands.	HA	Not expected to occur; suitable habitat not present in the BSA.
Cirsium crassicaule	Slough thistle	CRPR-1B.1	Marshes, chenopod scrub, and riparian scrub.	HA	Not expected to occur; suitable habitat not present in the BSA.

Table 1. Special-Status Species with Potential to Occur in the BSA

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present (HP)/ Habitat Absent (HA)	Rationale for Occurrence in or near BSA
Delphinium recurvatum	Recurved larkspur	CRPR-1B.2	Chenopod scrub in cismontane woodland and valley and foothill grassland.	HA	Not expected to occur; suitable habitat not present in the BSA.
Eryngium racemosum	Delta button-celery	CRPR-1B.1 SE	Riparian scrub in vernally mesic clay depressions.	HA	Not expected to occur; suitable habitat not present in the BSA.
Hibiscus lasiocarpos var. *occidentalis*	Woolly rose-mallow	CRPR-1B.2	Freshwater marshes.	HA	Not expected to occur; suitable habitat not present in the BSA.
Lathyrus jepsonii var. *jepsonii*	Delta tule pea	CRPR-1B.2	Freshwater and brackish marshes.	HA	Not expected to occur; suitable habitat not present in the BSA.
Lilaeopsis masonii	Mason's lilaeopsis	CRPR-1B.1 SR	Shore zones of freshwater and brackish tidal.	HA	Not expected to occur; suitable habitat not present in the BSA.
Limosella subulata	Delta mudwort	CRPR-2B.1	Marshes and swamps.	HA	Not expected to occur; suitable habitat not present in the BSA.
Sagittaria sanfordii	Sanford's arrowhead	CRPR-1B.2	Marshes and swamps.	HP	Suitable habitat present, but species not observed during site visit when it would have been identifiable
Scutellaria lateriflora	Side-flowering skullcap	CRPR-2B.2	Meadows and seeps, marshes and swamps	HA	Not expected to occur; suitable habitat not present in the BSA.
Symphotrichum lentum	Suisun marsh aster	CRPR-1B.2	Brackish and freshwater marshes.	HA	Not expected to occur; suitable habitat not present in the BSA.
Trichocoronis wrightii var. *wrightii*	Wright's trichocoronis	CRPR-2B.1FESR	Vernal pools.	HA	Not expected to occur; suitable habitat not present in the BSA.
Trifolium hydrophilum	Saline clover	CRPR 1B.2	Alkaline vernal pools.	HA	Not expected to occur; suitable habitat not present in the BSA.
Tuctoria greenei	Greene's tuctoria	CRPR-1B.1 FE SR	Vernal pools.	HA	Not expected to occur; suitable habitat not present in the BSA.
INVERTEBRATES					
Branchinecta lynchi	Vernal pool fairy shrimp	FT	Vernal pools.	HA	Not expected to occur; suitable habitat not present in the BSA.
Branchinecta mesovallensis	Midvalley fairy shrimp	FSC	Vernal pools.	HA	Not expected to occur; suitable habitat not present in the BSA.

Table 1. Special-Status Species with Potential to Occur in the BSA

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present (HP)/ Habitat Absent (HA)	Rationale for Occurrence in or near BSA
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	FT	Elderberry shrubs typically in riparian habitat.	HA	Not expected to occur; suitable habitat not present in the BSA.
Lepidurus packardi	Vernal pool tadpole shrimp	FE	Vernal pools.	HA	Not expected to occur; suitable habitat not present in the BSA.
AMPHIBIANS					
Ambystoma californiense	California tiger salamander	FT ST SSC	Vernal pools and permanent waters in grasslands; burrows in adjacent upland sites.	HA	Not expected to occur; suitable habitat not present in the BSA.
Rana aurora draytonii	California red-legged frog	FT SSC	Foothill streams with dense shrubby or emergent riparian vegetation, minimum 11–20 weeks of water for larval development, and upland refugia for aestivation.	HA	Not expected to occur; suitable habitat not present in the BSA and this species is presumed extirpated from the valley floor.
REPTILES					
Actinemys marmorata marmorata	Northwestern pond turtle	SSC	Ponds, marshes, rivers, streams, sloughs.	HP	Could occur; suitable habitat present in South Littlejohns Creek.
Thamnophis gigas	Giant garter snake	FT ST	Freshwater marsh, low-gradient streams and sloughs.	HA	Not expected to occur. South Littlejohns Creek no longer provides suitable habitat conditions for the species due to agricultural conversion and it is no longer expected to occur in the Stockton diverting canal; the nearest documented occurrence location (Hansen, pers. comm. 2014) .The BSA is highly disturbed and vegetation is cleared on a regular basis by the Flood Control District. White Slough Wildlife Area approximately 20 miles northwest of the BSA supports the only known extant population in San Joaquin County.

Table 1. Special-Status Species with Potential to Occur in the BSA

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present (HP)/ Habitat Absent (HA)	Rationale for Occurrence in or near BSA
BIRDS					
Elanus leucurus (nesting)	White-tailed kite	SSC FP	Forages in open meadows, grasslands, and agricultural fields.	HP	Could nest in medium to large valley oaks within a quarter mile of the BSA.
Buteo swainsoni	Swainson's hawk	ST	Nest in riparian forest and scattered trees; forage in grasslands and agricultural fields.	HP	Expected to occur; suitable foraging and nesting habitat present within a quarter mile of the BSA.
Athene cunicularia (burrowing sites)	Western burrowing owl	SSC	Grasslands and agricultural fields.	HP	Could occur; suitable foraging and nesting habitat present in the BSA.
Lanius ludovicianus (nesting)	Loggerhead shrike	SSC	Grasslands and agricultural areas with fairly dense patches of shrubs for nesting.	HP	Could occur; suitable foraging habitat is present in the BSA and suitable nesting habitat present in the riparian corridor adjacent to the BSA.
Vireo bellii pusillus	Least Bell's vireo	FE SE	Dense, low, shrubby vegetation in riparian areas, but also brushy fields, young second-growth forest or woodland, scrub oak, coastal chaparral, and mesquite brushlands.	HA	Not expected to occur; suitable habitat not present in the BSA.
Melospiza melodia (year round)	Song sparrow (Modesto population)	SSC	Nests and forages primarily in emergent marsh, riparian scrub, and early successional riparian forest habitats in the north-central portion of the Central Valley.	HA	Not expected to occur; suitable habitat not present in the BSA.
Agelaius tricolor (nesting)	Tricolored blackbird	SSC	Nest in dense cattails and tules, riparian scrub, and other low, dense vegetation; forage in grasslands and agricultural fields.	HA	Not expected to occur; suitable habitat not present in the BSA.

Table 1. Special-Status Species with Potential to Occur in the BSA

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present (HP)/ Habitat Absent (HA)	Rationale for Occurrence in or near BSA
Xanthocephalus xanthocephalus	Yellow-headed blackbird	SSC	Nest in marshes; forage in marshes and surrounding grasslands and agricultural fields.	HA	Not expected to occur; suitable habitat not present in the BSA.
MAMMALS					
Antrozus pallidus	Pallid bat	SSC	Grasslands, shrublands, woodlands, and forests near water; roosts in buildings, trees, caves, mines, and crevices.	HP	Could occur; suitable roosting habit is present under Austin Road Bridge.
Corynorhinus townsendii townsendii (roosting)	Townsend's big-eared bat	SSC	Caves and buildings primarily in mesic habitats.	HP	Could occur; suitable roosting habit is present under Austin Road Bridge.
Eumops perotis californicus (roosting)	Greater western mastiff bat	SSC	Crevices in cliff faces, tall buildings, trees, and tunnels in open semi-arid to arid areas with abundant roost locations.	HP	Could occur; suitable roosting habit is present under Austin Road Bridge.
Sylvalagus bachmani riparius	Riparian brush rabbit	FE SE	Riparian scrub communities.	HA	Not expected to occur; suitable habitat not present in the BSA.
FISH					
Acipenser medirostris	Green sturgeon	FT	Marine waters, estuaries, lower reaches of large rivers, and salt or brackish waters off river mouths.	HA	Not expected to occur; found only in mainstem and large tributaries of the Sacramento River Basin.
Hypomesus transpacificus	Delta smelt	FT/ SE	Spawns in tidally influenced freshwater wetlands and seasonally submerged uplands. Rears in Suisun Marsh and other areas of the Delta within salinity gradient.	HA	Not expected to occur; restricted to the Sacramento-San Joaquin Delta.

Table 1. Special-Status Species with Potential to Occur in the BSA

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present (HP)/ Habitat Absent (HA)	Rationale for Occurrence in or near BSA
Oncorhynchus mykiss	Central valley steelhead	FT	Requires cold freshwater streams with gravel for spawning. Rears in rivers and Delta prior to emigrating to the ocean.	HA	Not expected to occur; Littlejohns's Creek does not provide gravel or shallow vegetated habitat for spawning in the BSA.
Oncorhynchus tshawytscha	Central Valley spring-run Chinook salmon	FT	Requires cold freshwater streams with gravel for spawning. Rears in rivers and Delta prior to emigrating to the ocean.	HA	Not expected to occur; Littlejohns's Creek does not provide gravel or shallow vegetated habitat for spawning in the BSA.
Oncorhynchus tshawytscha	Sacramento River winter-run Chinook salmon	FE	Requires cold freshwater streams with gravel for spawning. Rears in rivers and Delta prior to emigrating to the ocean.	HA	Not expected to occur; restricted to the Sacramento-San Joaquin Delta and Littlejohn's Creek does not provide gravel or shallow vegetated habitat for spawning in the BSA.
Spirinchus thaleichthys	Longfin smelt	FC ST	Open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities of 15-30 ppt but can be found in freshwater or almost pure saltwater.	HA	Not expected to occur; restricted to the Sacramento-San Joaquin Delta and suitable habitat is not present in Littlejohn's Creek.

Absent [A] means no further work needed. Present [P] means general habitat is present and species may be present. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); California Native Plant Society (CNPS).

California Rare Plant Rank (CRPR) - CRPR 1B: rare, threatened or endangered in California and elsewhere; CRPR 2B: rare, threatened or endangered in California but more common elsewhere

0.1: Seriously endangered in California; 0.2-Fairly endangered in California; and 0.3-Not very endangered in California.

Sources: CNDDB 2014, USFWS 2014, and CNPS 2014.

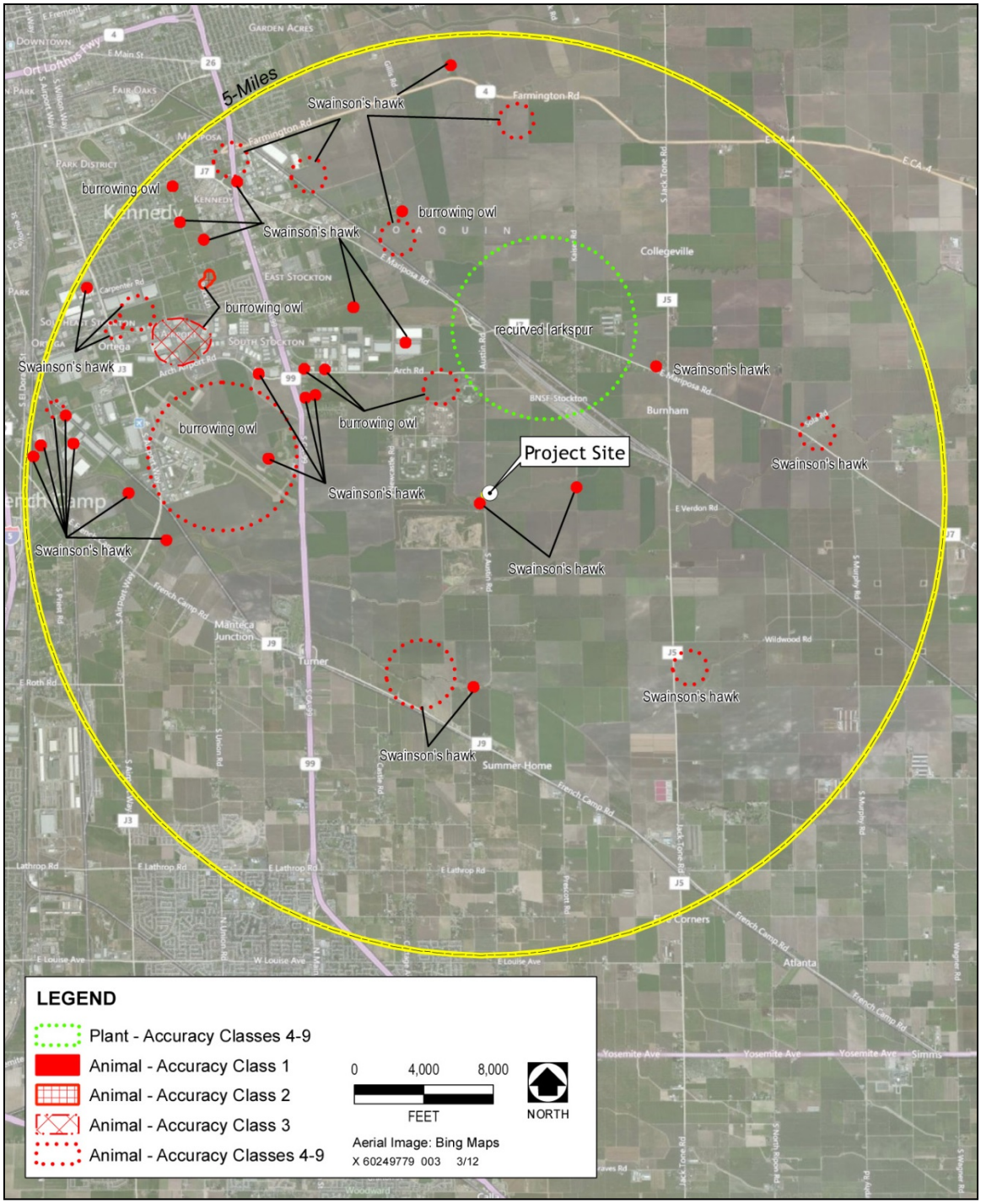

Figure 4. CNDDB Map

Chapter 4. Results: Biological Resources, Discussion of Impacts and Mitigation

4.1. Natural Communities of Special Concern

4.1.1. South Littlejohns Creek

South Littlejohns Creek flows perennially in a southwesterly direction through the BSA and the project footprint. South Littlejohns Creek is tributary to the San Joaquin River, a traditional navigable waterway, via French Camp Slough and the Calaveras River. South Littlejohns Creek is subject to USACE jurisdiction under Section 404 of the CWA and CDFW regulation under Section 1602 of the Fish and Game Code.

4.1.1.1. SURVEY RESULTS

Approximately 0.12 acre of the South Littlejohns Creek channel is present in the project footprint and could be temporarily affected during project construction.

4.1.1.2. AVOIDANCE AND MINIMIZATION EFFORTS

To avoid and minimize impacts to South Littlejohns Creek, the project Grading Plan shall include the following elements:

- A dewatering and diversion plan that indicates the scheduling approach and/or maximum diverted flows to minimize risks from potential rain events, specific diversion/bypass/dewatering methods and equipment, the types and locations of temporary Best Management Practices (BMPs) for the diversions and reintroduction points, measures and options for treating turbid water before release back to the channel, and stated water quality performance standards to obtain prior to releasing treated water
- Description of wetting flows before activation of treated channel sections based on a "channel seasoning" plan that indicates the water source(s), volumes, and duration required; phased placement of clean, washed gravels; and the measures and options for treating potentially turbid water
- Temporary erosion-control measures (such as fiber rolls, staked straw bales, detention basins, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) in disturbed areas
- Erosion control measures for the rainy season for disturbed surfaces

- Establishment of native grasses or other appropriate vegetative cover on the construction site as soon as possible after disturbance

The following BMPs shall be part of the Grading Plan:

- Stabilized Construction Entrance/Exit, TC-1
- Entrance/Outlet Tire Wash, TC-3
- Street Sweeping and Vacuuming, SC-7
- Dewatering Operations, NS-2
- Vehicle and Equipment Cleaning, NS-8
- Vehicle and Equipment Fueling, NS-9
- Vehicle and Equipment Maintenance, NS-10
- Material Delivery and Storage, WM-1
- Stockpile Management, WM-3

4.1.1.3. PROJECT IMPACTS

The proposed project will include the excavation of the existing earthen channel bottom and banks to an approximate depth of 4.5 ft to create a more uniform channel. The proposed project will involve the placement of a ¼ ton class RSP to reduce channel degradation.

Temporary, direct effects could occur from workers moving construction equipment associated with the scour, which could potentially adversely affect the water quality in South Littlejohns Creek, but the avoidance and minimization measures outlined above are expected to fully offset potential effects on water quality. RSP would be placed along the banks of the creek. 0.12 acre of waters of the United States would be impacted by the excavation of the channel bed. Placement of RSP above the OHWM would result in modification of the adjacent banks of South Littlejohns Creek. Areas of South Littlejohns Creek that are above the OHWM, but within the 100-year floodplain are regulated under Section 1602 of the Fish and Game Code.

Construction would require temporary dewatering of the channel below the bridge. Dewatering would entail a temporary installation of an access ramp and coffer dams, or alternative diversion methods, to access the creek channel during potential flow periods within the creek.

4.1.1.4. COMPENSATORY MITIGATION

Prepare and implement a plan to remove all temporary construction materials and restore the streambed to preconstruction conditions following project implementation. This would be required as a condition of the Nationwide Permit and Streambed Alteration Agreement.

4.1.1.5. CUMULATIVE IMPACTS

No permanent loss of any section of South Littlejohns Creek, a water of the United States and a California stream subject to CDFW jurisdiction under Section 1602, is expected to result from project implementation. With the implementation of avoidance and minimization measures, the project would not contribute substantially to the loss or degradation of this type of resource in the area or region. Therefore, no cumulative effects on waters of the United States or California streams are expected.

4.2. Special-Status Plant Species

No special-status plant species are present in the BSA. No suitable habitat exists in the BSA for most of the special-status plant species identified in Table 1. The only special-status plant species with potential to occur is Sanford's arrowhead. This species was determined to be absent from the BSA during the biological surveys conducted in the BSA. Therefore it was determined that no special-status plant species are present. Therefore, no impacts to special-status plant species would occur as a result of project implementation and no mitigation is required.

4.3. Special-Status Animal Species Occurrences

4.3.1. Northwestern Pond Turtle

Northwestern pond turtle (*Emys marmorata marmorata*) is a California species of special concern. It occurs in ponds, marshes, rivers, streams, and irrigation ditches supporting aquatic vegetation. Adjacent upland areas are also used for basking and thermoregulation, egg-laying, and aestivation. Features that improve habitat quality for this species include emergent and submergent aquatic vegetation for cover, as well as rocks, logs, and open mud banks for basking.

4.3.1.1. SURVEY RESULTS

The section of South Littlejohns Creek located in the BSA is considered potential habitat for northwestern pond turtle. Submergent or emergent aquatic vegetation was not observed during the March 2012 reconnaissance survey; however, the banks and possibly channel of the creek appear to be routinely maintained and could support aquatic

vegetation between maintenance activities. The nearest documented CNDDB occurrence was recorded approximately 15.5 miles west of the BSA. Water and emergent vegetation, when present, in South Littlejohns Creek provide potential aquatic habitat for northwestern pond turtle.

4.3.1.2. AVOIDANCE AND MINIMIZATION EFFORTS

The following measures to avoid and minimize impacts to northwestern pond turtle will be implemented:

- To the extent possible, construction activities should be confined to the areas above the OHWM of South Littlejohns Creek.
- Clearing shall be confined to the minimal area necessary within 200 ft of aquatic habitat to facilitate construction activities. To ensure that construction equipment and personnel do not affect upland and aquatic habitat for northwestern pond turtle outside of the project footprint, orange barrier fencing will be erected at the creek bank to clearly define the habitat to be avoided.
- In-water work shall occur during periods of low flow or no water flow, or when flow has been diverted out of the work zone.
- BMPs shall be implemented throughout construction, as outlined in section 4.1.1.2. of the NES and Chapter 5 of the Water Quality Assessment Report, to avoid and minimize adverse effects to the water quality and natural habitats within the BSA.
- Preconstruction surveys shall be conducted immediately after dewatering and prior to construction activities. If northwestern pond turtles are found during field surveys, a qualified biologist permitted by CDFW shall move the turtle(s) to the nearest suitable habitat outside the project construction area.

4.3.1.3. PROJECT IMPACTS

Project implementation could result in temporary impacts to northwestern pond turtles, if they are present in South Littlejohns Creek, from construction noise and activity and potential adverse effects to water quality. Direct impacts from construction activities could occur if pond turtles are present in the construction area. Implementation of construction BMPs and other measures outlined above are expected to fully avoid or minimize these potential impacts.

4.3.1.4. COMPENSATORY MITIGATION

Implementation of the minimization and avoidance efforts are expected to fully offset potential impacts to northwestern pond turtle and its habitat. Therefore, no compensatory mitigation is warranted.

4.3.1.5. CUMULATIVE EFFECTS

No net loss of northwestern pond turtles or their habitat is expected to occur as a result of this project. Therefore, no cumulative effects on northwestern pond turtle are anticipated.

4.3.2. Swainson's Hawk and Other Raptors

Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), and other raptors could be present in suitable nesting and foraging habitat within 0.25 mile of the BSA. Suitable habitat for western burrowing owl is present within the BSA along the banks of South Littlejohns Creek and within a 200-ft buffer of the BSA.

Swainson's hawk is state listed as threatened. Swainson's hawks usually nest in large trees, primarily valley oak (*Quercus lobata*), cottonwood (*Populus fremontii*), and willow (*Salix sp.*), and most nests in the Central Valley are located in remnant riparian habitat along drainages. Swainson's hawks also nest in small groves, roadside trees, and isolated trees. During the nesting season, Swainson's hawks require suitable foraging habitat in association with suitable nesting habitat. Suitable foraging habitats include field crops (e.g., alfalfa and wheat), fallow fields, grassland, pasture, and some row crops.

White-tailed kite is a California fully protected species and California species of special concern. White-tailed kites forage in open grasslands, meadows, farmlands, and emergent wetlands. They nest in trees in grasslands, agricultural lands, wetlands, oak woodland, oak savanna, and riparian habitats associated with open areas. Nest sites range from relatively small isolated trees to large woodland patches. White-tailed kites are year-round residents in the Central Valley, typically found near agricultural areas.

Western burrowing owl is a state species of special concern. Burrowing owls typically occur in open, dry, sparsely vegetated habitats, such as annual and perennial grasslands and agricultural areas. They may also use habitats in urban areas, such as vacant lots, airports, athletic fields, golf courses, and railroad corridors. Burrow availability is a critical feature of suitable habitat. Burrowing owls are capable of digging their own burrows in areas with soft soil, but they generally prefer to adopt those excavated by other animals, typically ground squirrels (*Spermophilus beecheyi*). In areas where burrows are scarce, they can use pipes, culverts, debris piles, and other artificial features (Center for Biological Diversity et al. 2003).

4.3.2.1. SURVEY RESULTS

Thirty-one occurrences of Swainson's hawk have been reported in the CNDDB database within a five-mile radius of the BSA. The nearest recorded occurrence is a 2002 nesting record from approximately 0.16 mile south of the BSA (CNDDB 2012) on landfill property along Austin Road. This nest tree is still present and has been used by the pair since at least 1988 (CNDDB 2012). No hawks or potential hawk nests were observed in the BSA during the field survey. However, a Swainson's hawk was observed flying over the area by an AECOM biologist in 2011during surveys conducted for a different project. Agricultural fields surrounding the BSA provides suitable foraging habitat and mature trees within a quarter mile of the BSA provide suitable nesting habitat. Therefore, Swainson's hawk is expected to occur within 0.25 mile of the BSA.

No white-tailed kites were observed within the BSA during the March 2012 survey, but foraging and nesting habitat within 500 ft of the BSA is suitable for the species.

Eight occurrences of burrowing owl have been reported in the nine quads containing and surrounding the BSA (CNDDB 2012). The nearest CNDDB occurrence was recorded approximately 1.5 miles northwest of Austin Road Bridge. No owls or burrows were seen within the BSA during the March 2012 biological assessment reconnaissance survey; however, suitable habitat for this species is present in the BSA along the upper banks of South Littlejohns Creek and along the margins of the vineyards and agricultural fields within a 200-foot buffer around the BSA. Therefore, there is potential for western burrowing owl to occur in and adjacent to the BSA.

4.3.2.2. AVOIDANCE AND MINIMIZATION EFFORTS

The following measures to avoid and minimize impacts to Swainson's hawk and other raptors will be implemented:

- If project activities occur during the raptor-nesting season (March 1 through August 31), a focused survey to identify active Swainson's hawk or other raptor nests shall be conducted by a qualified biologist before commencement of activities. Surveys shall follow the guidelines provided in *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley* (Swainson's Hawk Technical Advisory Committee 2000) and include all areas of suitable nesting habitat within 0.25 mile of the project footprint. Consistent with survey guidelines, surveys would be conducted during at least two of the following survey periods: Period II (March 20 to April 5), Period III (April 5 to April 20), Period V (June 10 to July 30) prior to beginning construction. If no active nests are found, no further avoidance and minimization measures shall be required.

- If active nests are found during the surveys, appropriate buffers shall be established to avoid impacts. No project activity shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active. Given the project location and proposed construction methods, an exclusion buffer will be established through coordination with CDFWto provide adequate protection for nesting hawks and their young. A buffer of 500 ft would likely be recommended for white-tailed kite and other raptors. The size of the buffers may be reduced if a qualified biologist determines that project activity within a reduced buffer will not be likely to adversely affect the nest. This should be confirmed through coordination with CDFW.

The following measures to avoid and minimize impacts to burrowing owl will be implemented:

- A qualified biologist will conduct a survey according to the methods described in Appendix D of CDFW's Staff Report on Burrowing Owls (CDFW 2012b) prior to the start of construction activities in the BSA and within a 500-ft (150 meter) buffer to assess whether western burrowing owls are present in the project vicinity.
- If an active burrow is found during the non-breeding season (September 1 through January 31), every effort should be made to avoid direct impacts on the burrow. If the burrow cannot be avoided, then a burrowing owl exclusion plan shall be developed according to guidance provided in Appendix E of CDFW's Staff Report on Burrowing Owls (CDFW 2012b). Any burrowing owls excluded from their burrows will be relocated outside of the impact area using passive or active methodologies developed in consultation with CDFW and may include active relocation to preserve areas or to artificial replacement burrows created on site if approved by CDFW. No burrowing owls will be excluded from occupied burrows until the burrowing owl exclusion and relocation plan is approved by CDFW. Exclusion of owls from an active burrow should only be employed if no other avoidance and minimization measures are feasible.
- If an active burrow is found during the breeding season (February 1 through August 31), occupied burrows shall not be disturbed and shall be provided with a 150-ft to 1,500 ft protective buffer unless a qualified biologist verifies through non-invasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. The appropriate size of the buffer (between 150 to 1,500) will depend on the time of year and level of disturbance as outlined in the CDFW Staff Report (2012b, pg 9).The size of the buffer may be reduced if a qualified biologist, in

consultation with CDFW, determines burrowing owls would not be adversely affected by the proposed activities. Once the fledglings are capable of independent survival, the owls will be relocated outside the impact area following a burrowing owl exclusion and relocation plan developed in consultation with CDFW and the burrow will be destroyed to prevent owls from reoccupying it. No burrowing owls will be excluded from occupied burrows until the burrowing owl exclusion and relocation plan is approved by CDFW.

4.3.2.3. PROJECT IMPACTS

Project implementation could result in temporary indirect impacts on Swainson's hawk, white-tailed kite, and other nesting raptors. No trees would be removed as a result of implementing the project, but construction could disturb nesting raptors, if they are present in suitable nesting habitat in the vicinity of the project, causing them to abandon their nests. Nest abandonment could result in mortality of chicks or eggs.

Project implementation could result in temporary and direct disturbance to Swainson's hawk. Nest sites could be located in isolated trees within a 0.25 mile of the BSA. Construction-related activity could cause nest abandonment, particularly during the pre-nesting, egg-laying, and incubation stages of the reproductive cycle.

Project implementation could result in temporary indirect and direct impacts on western burrowing owl. Temporary indirect impacts on this species could result from the movement of equipment and workers associated with construction activities. Direct impacts could result from destruction of occupied burrows, if they are present within the BSA and disturbance during construction if burrows are present within up to a 650-ft buffer around the BSA, potentially resulting in abandonment of occupied burrows and nests and subsequent mortality of chicks and eggs.

4.3.2.4. COMPENSATORY MITIGATION

Implementation of the minimization and avoidance efforts are expected to fully offset temporary and indirect impacts to Swainson's hawk and white-tailed kite, and other raptors and their habitat. Therefore, no compensatory mitigation is warranted for these species. There is potential for permanent loss of active burrowing owl nest sites. The following measures shall be implemented if active burrowing owl nests are found on the project site and these nest sites are lost as a result of implementing the project:

- The project applicant shall mitigate the loss through preservation of other known nest sites at a ratio of 1:1. Preservation shall be provided through purchase of credits

from a CDFW-approved burrowing owl conservation bank if credits are available for the project area.

- All burrowing owl mitigation lands shall be preserved in perpetuity and incompatible land uses shall be prohibited in habitat conservation areas. Burrowing owl mitigation lands shall be located as close as possible, based on availability of sufficient suitable habitat, to the project site.

4.3.2.5. CUMULATIVE EFFECTS

No net loss of Swainson's hawks and other raptors or their habitat is expected to occur as a result of this project. Therefore, no cumulative effects on these species are anticipated.

4.3.3. Loggerhead Shrike and Other Migratory Birds

Loggerhead shrike is a California species of special concern. This species is a common year-round resident throughout most of California. Loggerhead shrikes occur in grasslands, agricultural lands, open shrublands, and woodlands. Optimal habitat typically includes thorny shrubs on which they can impale their prey, but they can also be found in habitats that lack this component. They prey on insects, mice, and small birds. Loggerhead shrikes nest in shrubs and small trees. Other common migratory bird species (e.g., mourning dove, American robin, and scrub jay) could nest in the BSA or surrounding areas. While these are not special-status species, they are protected under the MBTA and destruction of any migratory bird nest is a violation of the MBTA.

4.3.3.1. SURVEY RESULTS

There are no documented occurrences of loggerhead shrike recorded in the CNDDB in the nine quads containing and surrounding the BSA. No loggerhead shrikes were observed within the BSA during the March 2012 biological assessment reconnaissance survey; however foraging habitat in the BSA is suitable for the species and it could nest in the willow riparian scrub along South Littlejohns Creek, immediately adjacent to the BSA. No common migratory bird nests (except swallow nests, which are addressed below) were observed in the BSA during the March 2012 biological assessment reconnaissance survey, but potential nesting habitat for a number of common migratory birds is present.

4.3.3.2. AVOIDANCE AND MINIMIZATION EFFORTS

The following measures to avoid and minimize impacts to loggerhead shrike and other nesting migratory birds will be implemented:

- If project activities occur during the loggerhead shrike or migratory bird nesting season (March 1 through August 31), a focused survey to identify active shrike and

other migratory bird nests shall be conducted by a qualified biologist before commencement of activities. Surveys shall include all areas of suitable nesting habitat within 200 ft of the project footprint. If no active nests are found, no further mitigation shall be required.

- If active nests are found during the surveys, appropriate buffers shall be established to avoid impacts. No project activity shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active. Given the project location and proposed construction methods, it is anticipated that CDFW would recommend a 200-foot buffer around a loggerhead shrike nest to provide adequate protection for nesting shrikes and their young. The size of the buffers may be reduced if a qualified biologist determines that project activity within a reduced buffer will not be likely to adversely affect the nest. This should be confirmed with CDFW. The appropriate buffer for common migratory bird nests is 50 feet.

4.3.3.3. PROJECT IMPACTS

Project implementation could result in temporary and direct disturbance to loggerhead shrikes or other nesting migratory birds. Nest sites could be located in shrubs and small trees in the riparian habitat within the BSA. Construction-related activity could cause nest abandonment, particularly during the pre-nesting, egg-laying, and incubation stages of the reproductive cycle.

4.3.3.4. COMPENSATORY MITIGATION

Implementation of the minimization and avoidance efforts are expected to fully offset temporary and indirect impacts to loggerhead shrike and migratory birds and their habitat. Therefore, no compensatory mitigation is warranted.

4.3.3.5. CUMULATIVE EFFECTS

No net loss of loggerhead shrikes, migratory birds, or their habitat is expected to occur as a result of this project. Therefore, no cumulative effects on logger head shrikes are anticipated.

4.3.4. Swallows

Cliff swallows are migratory birds that winter in South America and migrate north to breed in the spring. Although not state or federally listed, cliff swallows are protected under the MBTA. Suitable nest sites include rough surfaced cliffs, caves, buildings, bridges, tunnels, and tree trunks. In addition to nest sites, suitable habitat must include a fresh mud supply and quiet lakes, ponds, streams, or rivers nearby for drinking water.

4.3.4.1. SURVEY RESULTS

Cliff swallow nests were observed under Austin Road Bridge during the March, 2012 biological assessment reconnaissance survey.

4.3.4.2. AVOIDANCE AND MINIMIZATION EFFORTS

The following measures to avoid and minimize impacts to cliff swallows will be implemented:

- If project activities are expected to occur during the cliff swallow nesting season (from April to August with peak activity in June), the County shall install 5/8 inch bird netting along both sides of the existing bridge between the deck and the water surface to exclude nesting swallows. The netting must be installed prior to February 15, and maintained until September 1 or until the bridge work is deconstructed and completed.
- The County shall retain an on-site monitor (qualified biologist) to perform weekly inspections of the netting and maintain it in proper functioning condition. The monitor shall inspect the bridge weekly for signs that swallows may have infiltrated the netting and begun building nests under the bridge.
- If project activities occur during the cliff swallow nesting season (from April to August with peak activity in June) and exclusionary netting was not in place and monitored during as described in bullet 1, a focused survey to identify active cliff swallow nests in the BSA shall be conducted by a qualified biologist from 2-15 days before commencement of construction activities. If no active nests are found, no further mitigation shall be required.
- If nesting swallows are present (eggs or nestlings only), construction shall not commence until nesting cycle has completed. The nest cycle for cliff swallows is approximately one to two weeks. No project activity shall commence until a qualified biologist confirms that the nests are no longer active.
- If it looks like swallows are starting to build a nest; however there are no eggs or nestlings, the nests can be removed to ensure that no active nests are present during construction.

4.3.4.3. PROJECT IMPACTS

Project implementation could result in temporary and direct disturbance to cliff swallows. Swallow nests are present on the undersurface of Austin Road Bridge. Construction-related activity could destroy active swallow nests and eggs or nestlings, if present. Nest

abandonment, could occur during the pre-nesting, egg-laying, and incubation stages of the reproductive cycle.

4.3.4.4. COMPENSATORY MITIGATION

Implementation of the minimization and avoidance measures is expected to fully offset potential impacts to cliff swallows and their habitat. Therefore, no compensatory mitigation is warranted.

4.3.4.5. CUMULATIVE EFFECTS

No net loss of cliff swallows or their habitat is expected to occur as a result of this project. Therefore, no cumulative effects on cliff swallows are anticipated.

4.3.5. Bats

There is potential nesting habitat on the underside of Austin Road Bridge for three bats that occur in San Joaquin County: pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and greater western mastiff bat (*Eumops perotis*).

Pallid bat is a California species of special concern. Pallid bat is a locally common species of low elevations in California. It occupies a wide variety of habitats, including grasslands, shrublands, woodlands, and forests. Most pallid bats (95%) roost in groups of 20, typically in caves, crevices, mines, and occasionally in hallow trees and buildings. Roost must protect bats from higher temperatures. Bats move deeper into cover if temperatures rise (Zeiner et al 1990).

Townsend's big-eared bat is a California species of special concern and a federal species of concern. It forages over a wide variety of grassland, wetland, shrub, and wooded habitats, although it is most common in mesic forests. This species roosts in small colonies of 12–200 individuals, typically in caves and rock crevices. Bridges, buildings, and tree cavities are also occasionally used for roosting. Nursery roosts are most often located in caves, tunnels, mines, and buildings (Zeiner et. al 1990).

Greater western mastiff bat is a California species of special concern. This is the largest native bat species in the United States. Suitable habitat for this species consists of extensive open areas with rock outcrops, cliffs, buildings, or trees for roosting. It occurs in a variety of open habitats including woodlands, scrub, annual grassland, chaparral, and urban areas (Zeiner et. al 1990). Nursery roosts are typically in tight rock crevices or crevices in buildings (Zeiner et. al 1990). This species commonly shares roosts with other bat species.

4.3.5.1. SURVEY RESULTS

Bats were not observed during the survey conducted in March 2012 but marginally suitable habitat is present. Pallid bat, greater western mastiff bat, and Townsend's big-eared bat could roost underneath Austin Road Bridge, although the potential is very low for the bridge to be used as a nursery roost because there are no suitable cavities to occupy. The nearest documented CNDDB occurrence for pallid bat was recorded approximately 9.5 miles east of the BSA. The nearest documented CNDDB occurrence for greater western mastiff bat was approximately 17.8 miles southeast of the BSA. Townsend's big-eared bat was recorded approximately 25.4 southwest of the BSA.

4.3.5.2. AVOIDANCE AND MINIMIZATION EFFORTS

- A focused survey to determine if bats are roosting at the bridge shall be conducted by a qualified biologist before commencement of construction activities and before installation of exclusionary netting or other exclusionary devices.
- If roosting pallid bats, greater western mastiff bat, or Townsend's big-eared bats are identified, then the County shall consult with CDFW regarding biological significance of the bat population and appropriate measures that could be used to exclude bats from roosting under the bridge. Suitable exclusionary materials may include netting, Visqueen© poly sheeting, foam filling (for crevices), or other mechanical devices.

4.3.5.3. PROJECT IMPACTS

Project implementation could result in temporary and direct disturbance to pallid bat, greater Western mastiff bat, or Townsend's big-eared bat, if present. Construction-related activity could cause roost abandonment but is unlikely to result in abandonment of young since it is unlikely that Austin Road Bridge serves as a nursery roost.

4.3.5.4. COMPENSATORY MITIGATION

If it is determined that a substantial impact to pallid bat, greater Western mastiff bat, or Townsend's big-eared bat will occur, then the County shall compensate for the impact through the development and implementation of a mitigation plan in coordination with CDFW.

4.3.5.5. CUMULATIVE EFFECTS

There are no other known projects that are likely to affect pallid bat, greater Western mastiff bat, or Townsend's big-eared bat occurring in the area and the project site is not expected to support a nursery roost. Therefore, cumulative effects are expected to be negligible.

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Chapter 5. Results: Permits and Technical Studies for Special Laws or Conditions

5.1. Federal Endangered Species Act Consultation Summary

The proposed project would not affect species listed as threatened or endangered under the federal ESA. No designated critical habitat is present within the BSA and therefore critical habitat will not be affected by the proposed project. Because the project would not affect a federally-listed species, consultation with USFWS pursuant to Section 7 of the ESA is not required.

5.2. Federal Fisheries and Essential Fish Habitat Consultation Summary

The proposed project would not affect fish species listed as threatened or endangered under the federal ESA and there is no critical habitat designated within the BSA. Because the project would not affect federally-listed fish species, consultation with USFWS or the NMFS pursuant to Section 7 of the ESA is not required.

5.3. California Endangered Species Act Consultation Summary

The proposed project could affect species listed as rare, threatened, or endangered under the CESA. Species under the jurisdiction of CDFW that could be affected by the proposed project include Swainson's hawk if they are present in the BSA; however, implementation of the proposed avoidance and minimization measures would ensure the project does not result in take of Swainson's hawk. Therefore, formal consultation with CDFW is not warranted. Coordination with CDFW is recommended to establish appropriate protective buffers if nesting Swainson's hawks are found in the BSA or surrounding areas during preconstruction surveys.

5.4. Wetlands and Other Waters Coordination Summary

Portions of South Littlejohns Creek that would be affected by project construction are regulated by USACE, RWQCB, and/or CDFW under Sections 401 and 404 of the CWA, and Section 1602 of the California Fish and Game Code. A copy of the draft preliminary delineation of waters of the United States is included in Appendix B.

The project would likely qualify for a NWP 13 (bank stabilization). In addition, NWP 33 (Temporary Access and Dewatering) would likely be required for project construction.

Because a Section 404 permit would be required, the County must obtain water quality certification from the RWQCB, pursuant to Section 401 of the CWA to ensure the project is consistent with the state's water quality standards and criteria.

South Littlejohns Creek also is subject to regulation by CDFW under Section 1602 of the California Fish and Game Code. Therefore, implementation of the project would require a Streambed Alteration Agreement.

5.5. Invasive Species

The CalIPC Invasive Plant Inventory was used for the analysis of invasive species that occur in the BSA. The following invasive species from the list was identified within the BSA during the reconnaissance survey March 2012: poison hemlock. Additional invasive plant species that were not identifiable at the time of the survey have potential to occur in the BSA.

The infestations of invasive species in the BSA are similar to those found along roadsides and agricultural areas throughout the Central Valley. To prevent the spread of weeds, the following management measures should be implemented to comply with EO 13112:

- Use only certified weed-free straw or rice straw mulch;
- Use native, non-invasive species or non-persistent hybrids in erosion control plantings to stabilize site conditions and prevent invasive species from colonizing;
- Minimize surface disturbance to the greatest extent possible;
- Construction equipment must be cleaned to remove debris that could contain invasive species or their seeds prior to transport to and from the BSA; and
- Washing of construction vehicles and equipment shall be limited to approved maintenance facilities or staging areas.

References

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds). 2012. *The Jepson Manual: Vascular Plants of California, Second Edition.* University of California Press, Berkeley and Los Angeles, California.

Caltrans. 2012. NES Guidance Template http://www.dot.ca.gov/ser/forms.htm

California Department of Fish and Wildlife (CDFW) formerly known as the California Department of Fish and Game. 2014. RareFind 5(Commercial Version dated March 4, 2014): An Internet Application for the Use of the California Department of Fish and Game's California Natural Diversity Data Base (CNDDB). Biogeographic Data Branch, California Department of Fish and Game, Sacramento, CA. Accessed March 27, 2014.

———. 2012a. List of Fully Protected Animals in the State of California. Nongame Wildlife Program. Accessed April, 2012. http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html

———. 2012b. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency Department of Fish and Game. Sacramento,CA.

———. 2011a. *State and Federally Listed Endangered and Threatened Animals of California.* The Natural Resources Agency. Accessed March, 2012. http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf.

———. 2011b. *State and Federally Listed Endangered, Threatened, and Rare Plants of California*. Natural Diversity Data Base. Accessed March, 2012. http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEPlants.pdf.

———. 2010. *Hierarchical List of Natural Communities by Holland Type*. Accessed March, 2012. https://nrmsecure.dfg.ca.gov/FileHandler.ashx?DocumentID=24716&inline=1

California Department of Food and Agriculture. 2012. Encycloweedia Data Sheets: Weeds Sorted by Pest Rating. Accessed March 2012. http://www.cdfa.ca.gov/plant/ipc/weedinfo/winfo_list-pestrating.htm

California Invasive Plant Council (CalIPC). 2006. California Invasive Plant Inventory. Cal-IPC Publication 2006-02. California Invasive Plant Council: Berkeley, CA.

California Native Plant Society (CNPS). 2014. Inventory of Rare and Endangered Plants (online edition, v8-02March 2014. Accessed March 27, 2014. Available: http://www.rareplants.cnps.org.

Center for Biological Diversity, Santa Clara Valley Audubon Society, Defenders of Wildlife, San Bernardino Valley Audubon Society, California State Park Rangers Association, and Tri-County Conservation League. 2003. Petition to the State of California Fish and Game Commission and Supporting Information for Listing the California Population of the Western Burrowing Owl (*Athene cunicularia hypugaea*) as an Endangered or Threatened Species Under the California Endangered Species Act.

Collins, C. T. 1979. *The Ecology and Conservation of Burrowing Owls*. In Eds. P.P. Schaeffer and S.M. Ehlers. *Owls of the West, Their Ecology and Conservation*. Proceedings of the National Audubon Society Symposium.

Davis, M. A. and K. Thompson. 2000. Eight ways to be a colonizer; to ways to be an invader: a proposed nomenclature scheme for invasion ecology. Bulletin of the Ecological Society of America 81: 226–230.

Environmental Laboratory. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). (Technical Report ERDC/EL TR-08-28.) U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS.

———. 1987. U.S. Army Corps of Engineers Wetlands Delineation Manual. (Technical Report Y-87-1.) U.S. Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS.

Hansen, Eric C. Consulting Environmental Biologist. January 27, 2014 – telephone conversation with Rachel Kleinfelter of Caltrans District 10 regarding distribution of giant garter snake in eastern San Joaquin County and potetnial occurrence along Littlejohn's Creek.

Natural Resources Conservation Service. 2009 (September). Web Soil Survey (Version 2.2). Available: http://websoilsurvey.nrcs.usda.gov/. Accessed December 9, 2010.

San Joaquin County. 2000. (November 14). San Joaquin County Multi-Species Conservation and Open Space Plan (SJMSCP). Prepared by a consortium of local, state, and federal agencies. Stockton, California.

———. 1995. Title 9 Development Title of San Joaquin County, Division 15, Natural Resources Regulations. [Online] Available: http://www.sjgov.org/commdev/cgi-bin/cdyn.exe?grp=planning&htm=developmenttitle9. Accessed December 27, 2007.

U.S. Fish and Wildlife Service. 2014. USFWS Sacramento Fish and Wildlife Office Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Stockton East (461B) USGS 7.5-Minute Quad. Accessed March 27, 2014. Last updated September 18, 2011. Available: http://www.fws.gov/sacramento/es_species/Lists/es_species-lists_quad-finder_quicklist.cfm?ID=461B.

———. 2012. Species Accounts for Plants and Animals Listed Under the Federal Endangered Species Act. Endangered Species Program. Accessed April 2012. http://www.fws.gov/sacramento/ES_Species/Accounts/Home/es_species.htm.

———. 1999. Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). United States Fish and Wildlife Service, Portland, OR.

———. 1988. *National list of vascular plant species that occur in wetlands.* U.S. Fish & Wildlife Service Biological Report 88 (26.9).

United States Soil Conservation Service (SCS). 1992. Soil Survey of San Joaquin County, California. U.S. Department of Agriculture in cooperation with University of California Agricultural Experiment Station. Washington, DC.

Zeiner, D. C., W. F. Laudenslayer Jr., K. E. Mayer, and M. White (Editors). 1990. California's Wildlife Volume III Mammals. California Statewide Wildlife Habitat Relationship System. State of California Department of Fish and Game. Accessed April, 2012. http://www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx.

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Appendix A Database Search Results

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad is (Avena (3712171) or Lathrop (3712173) or Linden (3812111) or Lodi South (3812113) or Manteca (3712172) or Peters (3712181) or Stockton East (3712182) or Stockton West (3712183) or Waterloo (3812112))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
alkali milk-vetch *Astragalus tener var. tener*	PDFAB0F8R1	None	None	G2T2	S2	1B.2
big tarplant *Blepharizonia plumosa*	PDAST1C011	None	None	G2	S2	1B.1
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S2	SSC
California linderiella *Linderiella occidentalis*	ICBRA06010	None	None	G3	S2S3	
California tiger salamander *Ambystoma californiense*	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SSC
Delta button-celery *Eryngium racemosum*	PDAPI0Z0S0	None	Endangered	G1Q	S1	1B.1
Delta smelt *Hypomesus transpacificus*	AFCHB01040	Threatened	Endangered	G1	S1	
Delta tule pea *Lathyrus jepsonii var. jepsonii*	PDFAB250D2	None	None	G5T2	S2.2	1B.2
giant garter snake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2G3	S2S3	
Greene's tuctoria *Tuctoria greenei*	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
heartscale *Atriplex cordulata var. cordulata*	PDCHE040B0	None	None	G3T2	S2	1B.2
least Bell's vireo *Vireo bellii pusillus*	ABPBW01114	Endangered	Endangered	G5T2	S2	
longfin smelt *Spirinchus thaleichthys*	AFCHB03010	Candidate	Threatened	G5	S1	SSC
Mason's lilaeopsis *Lilaeopsis masonii*	PDAPI19030	None	Rare	G2	S2	1B.1
midvalley fairy shrimp *Branchinecta mesovallensis*	ICBRA03150	None	None	G2	S2	
moestan blister beetle *Lytta moesta*	IICOL4C020	None	None	G2	S2	
pallid bat *Antrozous pallidus*	AMACC10010	None	None	G5	S3	SSC
palmate-bracted salty bird's-beak *Chloropyron palmatum*	PDSCR0J0J0	Endangered	Endangered	G1	S1	1B.1
recurved larkspur *Delphinium recurvatum*	PDRAN0B1J0	None	None	G3	S3	1B.2

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
riparian brush rabbit *Sylvilagus bachmani riparius*	AMAEB01021	Endangered	Endangered	G5T1	S1	
round-leaved filaree *California macrophylla*	PDGER01070	None	None	G2	S2	1B.1
saline clover *Trifolium hydrophilum*	PDFAB400R5	None	None	G2	S2	1B.2
San Joaquin spearscale *Atriplex joaquinana*	PDCHE041F3	None	None	G2	S2	1B.2
Sanford's arrowhead *Sagittaria sanfordii*	PMALI040Q0	None	None	G3	S3	1B.2
slough thistle *Cirsium crassicaule*	PDAST2E0U0	None	None	G2	S2	1B.1
song sparrow ("Modesto" population) *Melospiza melodia*	ABPBXA3010	None	None	G5	S3?	SSC
Suisun Marsh aster *Symphyotrichum lentum*	PDASTE8470	None	None	G2	S2	1B.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S2	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	None	G2G3	S2	SSC
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T2	S2	
Valley Oak Woodland *Valley Oak Woodland*	CTT71130CA	None	None	G3	S2.1	
vernal pool andrenid bee *Andrena subapasta*	IIHYM35210	None	None	G1G3	S1S3	
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S2S3	
vernal pool tadpole shrimp *Lepidurus packardi*	ICBRA10010	Endangered	None	G3	S2S3	
watershield *Brasenia schreberi*	PDCAB01010	None	None	G5	S2	2B.3
white-tailed kite *Elanus leucurus*	ABNKC06010	None	None	G5	S3	FP
woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	PDMAL0H0R3	None	None	G5T2	S2	1B.2
Wright's trichocoronis *Trichocoronis wrightii var. wrightii*	PDAST9F031	None	None	G4T3	S1	2B.1
yellow-headed blackbird *Xanthocephalus xanthocephalus*	ABPBXB3010	None	None	G5	S3S4	SSC

Record Count: 39

Commercial Version -- Dated March, 4 2014 -- Biogeographic Data Branch

Report Printed on Thursday, March 27, 2014

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Information Expires 9/4/2014

CNPS California Native Plant Society | Rare and Endangered Plant Inventory

Plant List

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

Search Criteria

Found in 9 Quads around 37121H2

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	1B.2	S2	G2T2
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	1B.2	S2	G3T2
Atriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	1B.2	S2	G2
Blepharizonia plumosa	big tarplant	Asteraceae	annual herb	1B.1	S2	G2
Brasenia schreberi	watershield	Cabombaceae	perennial rhizomatous herb	2B.3	S2	G5
California macrophylla	round-leaved filaree	Geraniaceae	annual herb	1B.1	S2	G2
Centromadia parryi ssp. rudis	Parry's rough tarplant	Asteraceae	annual herb	4.2	S3.2	G3T3
Chloropyron palmatum	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.1	S1	G1
Cirsium crassicaule	slough thistle	Asteraceae	annual / perennial herb	1B.1	S2	G2
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	1B.2	S3	G3
Eryngium racemosum	Delta button-celery	Apiaceae	annual / perennial herb	1B.1	S1	G1Q
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb	1B.2	S2	G5T2
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	1B.2	S2.2	G5T2
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	1B.1	S2	G2
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb	1B.2	S3	G3
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	1B.2	S2	G2
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	Asteraceae	annual herb	2B.1	S1	G4T3
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	1B.2	S2	G2

Suggested Citation

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Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the STOCKTON EAST (461B) U.S.G.S. 7 1/2 Minute Quad

Database last updated: September 18, 2011
Report Date: March 27, 2014

Listed Species

Invertebrates
Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardi
vernal pool tadpole shrimp (E)

Fish
Acipenser medirostris
green sturgeon (T) (NMFS)

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians
Ambystoma californiense
California tiger salamander, central population (T)

Rana draytonii
California red-legged frog (T)

Reptiles
Thamnophis gigas
giant garter snake (T)

Mammals
Sylvilagus bachmani riparius
riparian brush rabbit (E)

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Appendix B Wetland Delineation

Preliminary Delineation of
Waters of the United States, Including Wetlands

Austin Road Bridge Scour Mitigation Project

Prepared for:

San Joaquin County Department of Public Works
Transportation Engineering Division

AECOM

April 2014

Preliminary Delineation of
Waters of the United States, Including Wetlands

Austin Road Bridge Scour Mitigation Project

Prepared for:

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April 2014

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ACRONYMS AND ABBREVIATIONS

County	San Joaquin County Department of Public Works
CWA	Clean Water Act
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
GPS	Global Positioning System
msl	mean sea level
NI	No Indicator
NL	Not Listed
NRCS	Natural Resources Conservation Service
OBL	Obligate
OHWM	Ordinary High-Water Mark
RPW	Relatively Permanent Water
SR	State Route
TNW	Traditional Navigable Water
UPL	Upland
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey
WSS	Web Soil Survey

INTRODUCTION

The San Joaquin County Department of Public Works (County) proposes to develop a uniform channel section supporting Austin Road Bridge with scour countermeasures to prevent channel degradation of the North Fork of South Littlejohns Creek. The proposed project is located in San Joaquin County, southeast of the City of Stockton, south of Arch Road, and north of the Forward Landfill, where Austin Road Bridge (Bridge 29C-259) crosses South Littlejohns Creek. The purpose of the project is to create a smooth channel transition throughout the project area and reduce channel degradation at abutments and piers that lead to bridge instability.

STUDY AREA

The study area is located approximately 2 miles east of State Route (SR) 99 in unincorporated central San Joaquin County (Exhibit 1). The study area footprint for this delineation includes the proposed project site as well as a buffer surrounding the work area. The study area is approximately 0.98 acres and is located within the U.S. Geological Survey (USGS) 7.5-minute Stockton East Quadrangle, Township 1 North, Range 7 East, Section 34/35 (Exhibit 2). The study area is approximately 35 feet above mean sea level (msl). South Littlejohns Creek is a USGS blue-lined stream, which is tributary to French Camp Slough, a tidally influenced water of the United States.

This report presents the results of the delineation of waters of the United States, as defined by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), for the study area. It is considered a draft until verified by the Sacramento District of USACE.

DELINEATION METHODS

Before conducting the wetland delineation of the study area, an AECOM wetland ecologist reviewed recent color aerial photographs of the study area at a scale of 1 inch = 200 feet and the soil survey of San Joaquin County (NRCS 2009) to determine areas of potential USACE jurisdiction. Shannon Hickey conducted the wetland delineation on March 19, 2012. The nearest precipitation rain gauge is the Stockton Fire Station (SFS), located approximately 7 miles to the northwest of the study area. At the time of the field investigation, approximately 3.12 inches of precipitation had been recorded for Stockton, CA in 2012. The last measureable precipitation event prior to the field survey was recorded on March 17, measuring 0.27 inches of rainfall (DWR 2012). Approximately 1 inch of rain was recorded in the 10 days prior to the field investigation (DWR 2012). Routine wetland determination data forms were completed for two data points and are provided in Appendix A.

The USACE 1987 wetland delineation manual (Environmental Laboratory 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Environmental Laboratory 2008) were used to delineate wetlands that could be subject to USACE jurisdiction under Section 404 of the CWA. The 1987 manual and 2008 Arid West Supplement provide technical guidelines and methods for the three-parameter approach to determining the location and boundaries of jurisdictional wetlands. This approach requires that an area must support positive indicators of hydrophytic vegetation, hydric soils, and wetland hydrology to be a wetland. Potential jurisdictional areas were identified and mapped in the field and later digitized onto an aerial photograph. Sample point locations were recorded digitally using a global positioning system (GPS) data logger (Trimble XH) and imported onto an electronic version of the aerial photograph. GPS data were recorded in NAD 83 datum.

To determine whether hydrophytic vegetation dominated the area, plant species at the sample site were listed on data forms and the wetland indicator status was recorded for the dominant species using the USACE's *National Wetlands Plant List for the Arid West Region* (Lichvar and Kartesz 2013). Hydrophytic species include those listed as obligate (OBL), facultative wetland (FACW, FACW*), or facultative (FAC, FAC*, FAC^{+}, but not FAC^{-}). Before the release and implementation of the Arid West Supplement, the 1987 wetland delineation manual treated species listed as FAC^{-} as species that are more likely to occur in upland habitats and, therefore, did not include FAC^{-} as a hydrophytic species (Environmental Laboratory 1987, 2008). The manual assigns an asterisk to species that have limited ecological information available. The plus ($^{+}$) and minus ($^{-}$) designations specify the higher or lower part of the frequency range. The designation of a species corresponds to the probability that a species will occur in a wetland habitat. The indicator categories are defined as:

- OBL: greater than 99% occurrence in wetlands,
- FACW: between 66% and 99% occurrence in wetlands, and
- FAC: between 34% and 66% occurrence in wetlands.

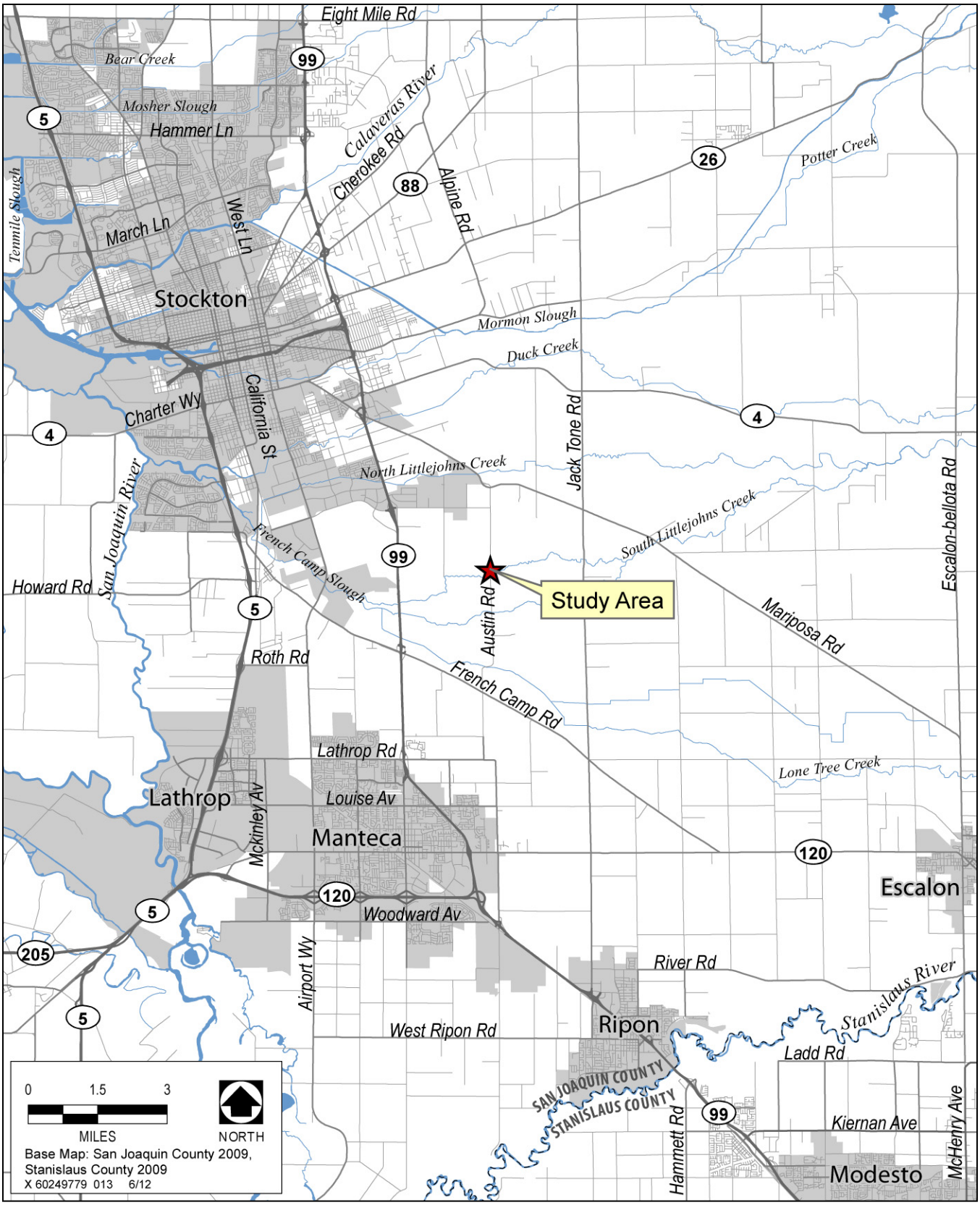
The Arid West Supplement gives equal weight to all FAC-listed species (i.e., plus [$^{+}$] and minus [$^{-}$] modifiers are not used)—FAC^{-}, FAC, and FAC^{+}—plants are all considered to be FAC. A sample site was considered to have hydrophytic vegetation if greater than 50% of the dominant species had an indicator status of FAC or wetter.

Species that usually occur in nonwetlands (67–99% estimated probability), but are occasionally found in wetlands (1–33% estimated probability), are identified as facultative upland (FACU). Obligate upland (UPL) species may occur in wetlands in another region, but almost always (>99%) occur–under natural conditions–in nonwetlands in California (Region 0). A no indicator (NI) designation is recorded for those species for which insufficient information was available to determine an indicator status. A not listed (NL) designation indicates a species is not listed in Reed (1988). These four indicators—UPL, FACU, NI, and NL—are used to identify species not considered hydrophytic. According to standard protocol, a species with an NL designation is considered UPL when completing the "Prevalence Index Worksheet" portion of the wetland determination data form (Environmental Laboratory 2008). Botanical nomenclature follows *The Jepson Manual: Vascular Plants of California*, Second Edition (Baldwin et al. 2012).

Wetland hydrology was assessed by recording observations such as drainage patterns, watermarks, flooded or saturated soil conditions, and other indicators of wetland hydrology. In addition, potentially jurisdictional areas were all evaluated in terms of the feature's status as a navigable waterway, adjacency, or hydrological connection to a navigable waterway.

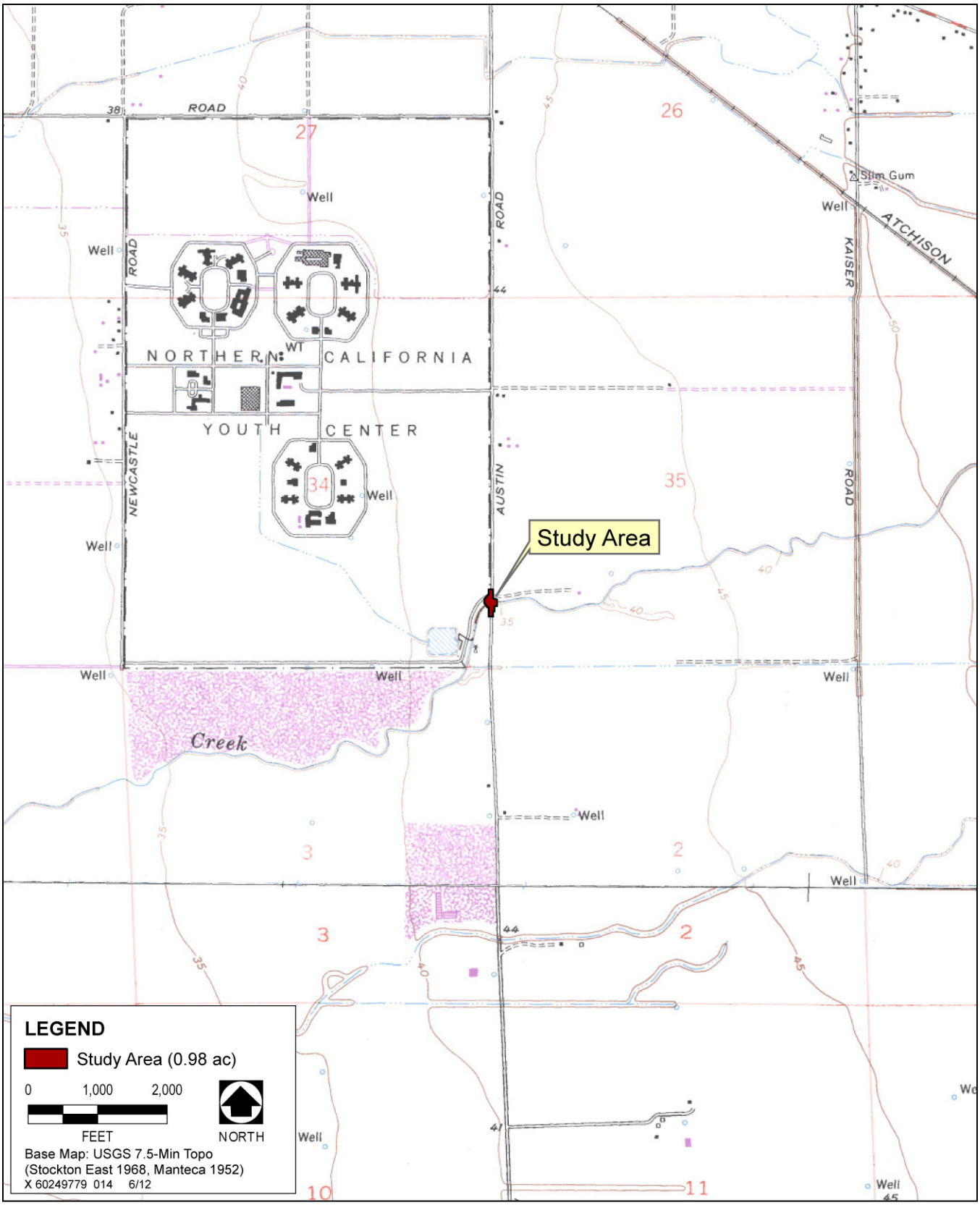
Waters of the United States were delineated based on the ordinary high-water mark (OHWM). OHWMs for drainages typically correspond with characteristics such as shelving, scour lines, and other natural linear features which define the bed and bank portion of the channel that floods under normal conditions (USACE 2005).

Soils were examined by digging soil test pits to determine whether hydric soils exist in a sampling location. Soils were described in terms of depth, matrix color, redoxymorphic color (when present), and moisture status at each sampling location. Other diagnostic features indicative of hydric soils, such as the presence of concretions and oxidized rhizospheres (a redoximorphic feature, according to Vepraskas [1992]), were also recorded on data forms. Hydric soil determinations were based on the indicators provided by the 1987 delineation manual, 2008 Arid West Supplement, the *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and*



Source: AECOM 2012

Exhibit 1 **Regional Location**



Source: AECOM 2012

Exhibit 2 **Site and Vicinity Map**

Delineating Hydric Soils (NRCS 2010a), and Vepraskas (1992). Soil units mapped to the study area by the soil survey were cross-referenced to *The National Hydric Soils List by State* (NRCS 2010b) to determine if the soil was listed as a hydric map unit.

The *U.S Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* was consulted to aid the preliminary determination that an area would be subject to USACE jurisdiction under Section 404 of the CWA (USACE 2007). The significant nexus test—outlined in a memorandum jointly authored by the U.S. Environmental Protection Agency (EPA) and USACE—was applied to each potentially jurisdictional habitat type (Grumbles and Woodley 2008). To facilitate jurisdictional determination consistent with the guidance, each water body delineated was evaluated as a Traditional Navigable Water (TNW), Relatively Permanent Water (RPW), or non-RPW based on the following definitions:

- TNWs include all waters subject to the ebb and flow of the tide, or waters that are presently used, have been used in the past, or may be used in the future to transport interstate or foreign commerce, and all waters that are navigable in fact under federal law for any purpose.
- RPWs are waters that flow continuously at least seasonally (typically at least 3 months of the year) and are not TNWs.
- Non-RPWs are waters that do not have continuous flow at least seasonally.

The following types of water bodies are subject to CWA jurisdiction:

- All TNWs and adjacent wetlands;
- Relatively permanent tributaries of TNWs and wetlands with a continuous surface connection to such tributaries; and
- Non-relatively permanent tributaries of TNWs and adjacent wetlands if they have a significant nexus to a TNW. Non-RPWs and adjacent wetlands are determined to have a significant nexus to a TNW if they significantly affect the chemical, physical, or biological integrity of a downstream TNW.

SOIL SURVEY RESULTS

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) of San Joaquin County, California the soils within the study area belong to the Stockton soil series (NRCS 2009); according to the *The National Hydric Soils List by State (California)*, the Stockton map unit contains minor hydric inclusions (NRCS 2010b). A soils map is provided in Appendix B.

STOCKTON CLAY, SLOPES 0-2 PERCENT (MAP UNIT 250)

The Stockton series is a deep soil with a hardpan located approximately 40 to 60 inches below the soil surface. Stockton soils are somewhat poorly drained soils formed in alluvium from mixed igneous and sedimentary rock sources. These soils occur in basins and in swales of drainageways and have slopes of 0 to 2 percent. Stockton soils are taxonomically classified as fine, smectitic, thermic Xeric Epiaquerts.

Stockton soils are somewhat poorly drained, runoff is very slow or slow, and permeability is slow. Most areas are artificially drained. Stockton soils have hydric inclusions of the following soils at approximately 2 percent each: Guard, Egbert, Galt, Jacktone, and Rioblancho (NRCS 2010b).

DELINEATION RESULTS

The study area contains one feature: 0.08 acres of the North Fork of South Littlejohns Creek that potentially qualifies as a waters of the United States according to Section 404 of the CWA (Exhibit 3). Upland habitats include ruderal habitat at the top of the banks of South Littlejohns Creek, developed habitat along Austin Road and Austin Bridge and vineyard (Appendix C).

A delineation sample site is depicted on Exhibit 3 and is cross-referenced to the wetland determination data form provided in Appendix A. Habitat descriptions are included below and a habitat map is provided in Appendix C. Representative photographs of the study area are provided in Appendix D, and a list of vegetation observed during the field survey is provided in Appendix E.

JURISDICTIONAL HABITAT TYPES

WATERS OF THE UNITED STATES

South Littlejohns Creek is a relatively permanent water (RPW) that has a direct hydrologic connection to waters of the United States. It is a tributary to the San Joaquin River via French Camp Slough and the Calaveras River, tidally influenced waters of the United States. Approximately 0.08 acres of South Littlejohns Creek are present within the study area.

Vegetation observed along the banks of South Littlejohns Creek is characterized predominately by nonnative weedy species such as poison hemlock (*Conium maculatum*) (FACW), black mustard (*Brassica nigra*) (NL), blessed milk thistle (*Silybum marianum*) (NL), Italian thistle (*Carduus pycnocephalus*) (NL), cocklebur (*Xanthium strumarium*) (FAC), mugwort (*Artemisia douglasiana*) (FAC), Italian ryegrass (*Festuca perennis*) (FAC), and saltgrass (*Distichlis spicata*) (FAC). The distance between the OHWMs from bank to bank across South Littlejohns Creek ranges from approximately 19 feet to 38 feet. Data forms 1 and 2 in Appendix A provide information about South Littlejohns Creek in the study area. South Littlejohns Creek is potentially subject to USACE jurisdiction because it has a direct connection to French Camp Slough, a tidally influenced waters of the United States.

NONJURISDICTIONAL HABITATS

Approximately 0.92 acres of the study area is composed of potentially nonjurisdictional habitats (Table 1). Potentially nonjurisdictional habitats within the study area include ruderal area, developed areas and vineyard (Appendix C). These habitats are potentially nonjurisdictional under Section 404 of the CWA because they lack one or more of the following three criteria which define wetlands: a hydrophytic plant assemblage, hydric soils, and wetland hydrology. The developed and agricultural habitats are located outside the OHWM of South Littlejohns Creek. The conclusions of this delineation are contingent upon verification by the Sacramento District USACE.

Source: AECOM 2012

Exhibit 3 **Wetland Delineation Map**

Table 1 Potentially Nonjurisdictional Features	
Upland Habitats	
Developed	0.38 acres
Ruderal	0.52 acres
Vineyard	0.02 acres
Total Potentially Nonjurisdictional Features	**0.92 acres**
Note: Locations of developed and ruderal habitats are depicted on the Habitat Map provided as Appendix C. Source: Data compiled by AECOM 2012	

DEVELOPED

Developed areas within the study area are associated with Austin Road and Austin Bridge as well as dirt roads adjacent to the agricultural field and vineyards (Appendix C). Developed areas are not likely subject to USACE jurisdiction under Section 404 of the CWA because these areas do not meet the definition of wetlands or waters of the United States.

RUDERAL

Ruderal areas characterized by weedy species are present along the banks of South Littlejohns Creek. Ruderal areas are not likely subject to USACE jurisdiction under Section 404 of the CWA because these areas do not meet the definition of wetlands or waters of the United States.

VINEYARD

A small area of vineyard is present within the study area. Soils were not investigated in this habitat type because other wetland plants and wetland hydrology were not observed.

JURISDICTIONAL DETERMINATION

One potentially jurisdictional feature was identified within the 0.98-acre study area. Approximately 0.06 acres of South Littlejohns Creek, an RPW that is directly tributary to French Camp Slough, a tidally influenced water of the United States is present in the study area. South Littlejohns Creek is potentially subject to Section 404 of the CWA because it has a direct connection to other waters of the United States.

The areas of vineyard, ruderal, and developed land in the study area are not likely subject to USACE jurisdiction under Section 404 of the CWA because they lack one or more criteria that define wetlands, do not possess an OHWM, and are located outside of an OHWM.

The conclusions of this wetland delineation are contingent on verification by the Sacramento District USACE. San Joaquin county Department of Public Works is requesting that USACE review and verify this delineation of waters of the United States and provide a preliminary jurisdictional determination for the 0.06 acre of RPW identified within the project study area

REFERENCES

California Department of Water Resources. 2012. California Data Exchange Center. Daily accumulated precipitation data for the Stockton Fire Station (SFS). Available: <http://cdec.water.ca.gov/cgi-progs/queryDaily?s=SFS>. Accessed May 29, 2012

DWR. *See* California Department of Water Resources.

Environmental Laboratory. 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0). (Technical Report ERDC/EL TR-08-28.) U.S. Army Corps of Engineers, Engineer Research and Development Center. Vicksburg, MS.

Environmental Laboratory. 1987. *U.S. Army Corps of Engineers Wetlands Delineation Manual.* (Technical Report Y-87-1.) U.S. Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS.

Grumbles, B. H., and J. P. Woodley, Jr. 2008 (December 2). *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in* Rapanos v. United States *and* Carabell v. United States. Memorandum to U.S. Environmental Protection Agency regions and U.S. Army Corps of Engineers districts. Washington, DC.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (eds). 2012. *The Jepson Manual: Vascular Plants of California, Second Edition.* University of California Press, Berkeley and Los Angeles, California.

Baldwin, B.G. (ed.). 2012. The Jepson Manual: Vascular Plants of California, 2nd Edition. University of California Press. Berkeley, California.

Lichvar, R. W., and J. T. Kartesz. 2013. *North American Digital Flora: National Wetlands Plant List.* Version 3.1. U.S. Army Corps of Engineers. Available: http://wetland_plants.usace.army.mil/.

Natural Resources Conservation Service. 2010a. *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils*, Version 7.0.

———. 2010b. (February). National Hydric Soils List by State (California). Available: <http://soils.usda.gov/use/hydric/lists/state.html>. Accessed December 10, 2010.

———. 2009. (September). Web Soil Survey (Version 2.2). Available: <http://websoilsurvey.nrcs.usda.gov/>. Accessed December 9, 2010.

NRCS. *See* Natural Resources Conservation Service.

USACE. *See* U.S. Army Corps of Engineers.

U.S. Army Corps of Engineers. 2008 (June 26). *Jurisdictional Determinations* Regulatory Guidance Letter No. 08-02.

———.2007. *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook.* Washington, DC.

———. 2005 (December 7). *Ordinary High Water Mark Identification*. Regulatory Guidance Letter No. 05-05.

Vepraskas, M. J. 1992. *Redoximorphic Features for Identifying Aquic Conditions.* Technical bulletin 301. North Carolina Agricultural Research Service, North Carolina State University. Raleigh, NC.

APPENDIX A

Wetland Delineation Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Austin Road Bridge City/County: Stockton Sampling Date: 3-19-2012

Applicant/Owner: State: Sampling Point:

Investigator(s): Shannon Hickey Section, Township, Range: 34/35, T1N, R7E

Landform (hillslope, terrace, etc.): Top of bank Local relief (concave, convex, none): Convex Slight Slope (%): 10 %

Subregion (LRR): Lat: 37.53101 Long: -121.1102 Datum: NAD 83

Soil Map Unit Name: 250 Stockton Clay NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? NO Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area within a Wetland?** Yes No X
Hydric Soil Present?	Yes	No X	
Wetland Hydrology Present?	Yes	No X	

Remarks: Top of bank, a 30' west of bridge on north bank of Littlejohns Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 20x10)			
1. Distichlis spicata	5%	NO	FACW
2. Brassica nigra	35%	Yes	NL
3. Silybum marianum	30%	Yes	NL
4. Xanthium strumarium	2%	NO	FAC
5. Lolium multiflorum	15%	Yes	FAC
6. Artemisia douglasiana	3%	NO	FACW
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	90 = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- Dominance Test is >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No X

Remarks:

US Army Corps of Engineers Arid West – Version 2.0

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	7.5YR 4/4				Clay Loam			
8 - 14	7.5YR 3/3				Clay Loam			

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Arid West – Version 2.0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Austin Road Bridge City/County: Stockton Sampling Date: 3-19-2012

Applicant/Owner: State: Sampling Point:

Investigator(s): Shannon Hickey Section, Township, Range: 3435, T1N, R7E

Landform (hillslope, terrace, etc.): Creek Local relief (concave, convex, none): Slope (%):

Subregion (LRR): Lat: 37.53101 Long: -121.1102 Datum: NAD 83

Soil Map Unit Name: 250 Stockton Clay NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	RPW waters of the US.
Hydric Soil Present? !	Yes	No X	**Is the Sampled Area within a Wetland?** Yes No X
Wetland Hydrology Present?	Yes	No	

Remarks:

Littlejohns Creek, tributary to French Camp Slough

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: (A)

Total Number of Dominant Species Across All Strata: (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- Dominance Test is >50%
- Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

Remarks:

OPEN WATER

US Army Corps of Engineers Arid West – Version 2.0

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

No Soil Pit. Sample point below OHWM.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- X Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- X Water Marks (B1) (**Riverine**)
- X Sediment Deposits (B2) (**Riverine**)
- X Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 12" +

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

OHWM ~40'

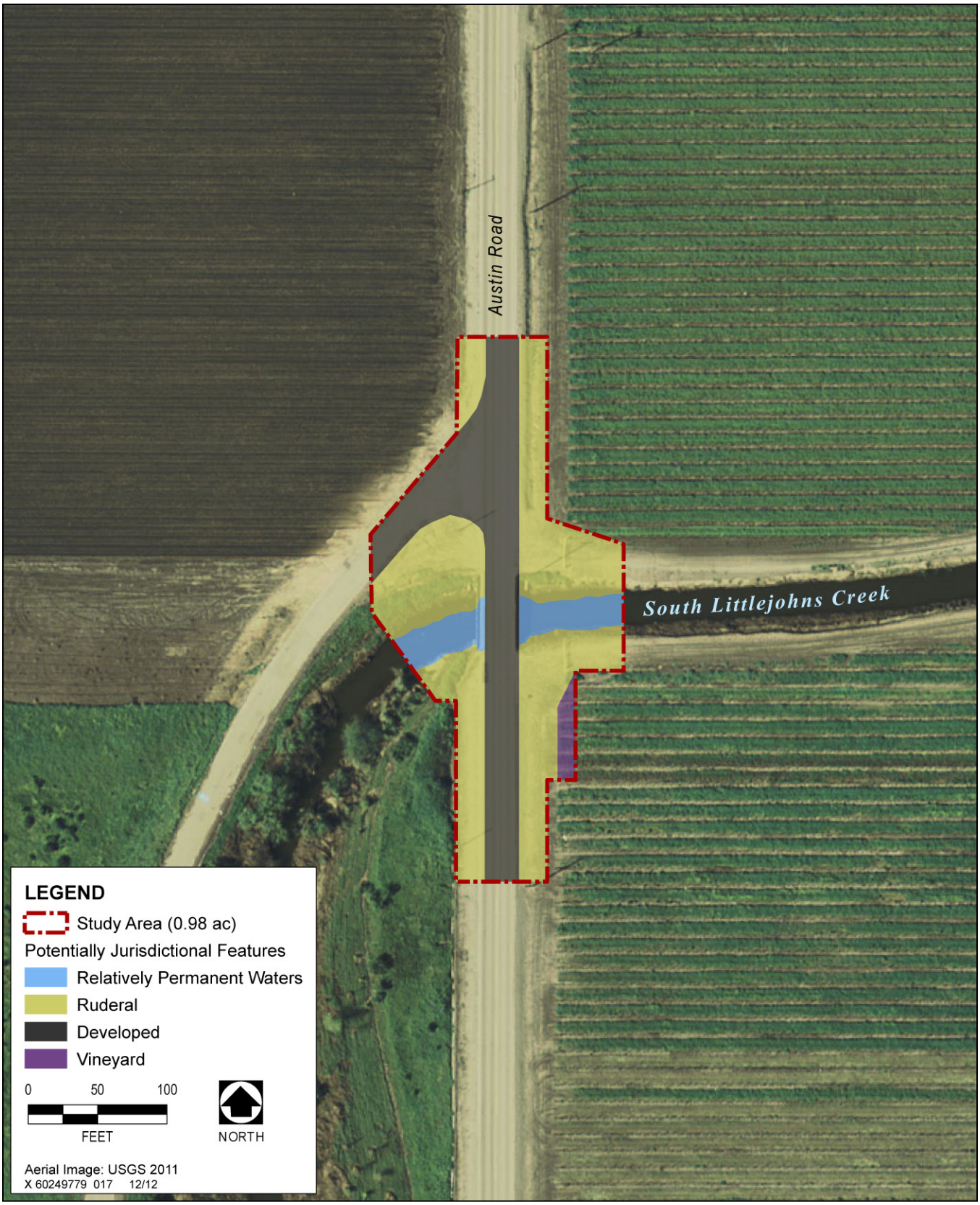
APPENDIX B

Soils Map

Source: AECOM 2012

APPENDIX C

Habitat Map



Source: AECOM 2012

APPENDIX D

Representative Photographs

View of Austin Road Bridge crossing South Littlejohns Creek, looking west.

View of Austin Road and adjacent agricultural field, looking north.

View of Austin Road and adjacent vineyard to northwest.

View of South Littlejohns Creek and Austin Road Bridge, looking south.

The soil within D1 is 7.5YR 4/4 down to 8 inches and 7.5YR 3/3 down to 14 inches, clay loam soil.

APPENDIX E

Species Observed

Appendix E Plant Species Observed List (March 19, 2012)		
Scientific Name	Common Name	NWPL Indicator Status (Lichvar and Kartesz 2013)
Avena fatua	Wild oat	NL
Artemisia douglasiana	Mugwort	FAC
Brassica nigra	Black mustard	NL
Bromus diandrus	Ripgut brome	NL
Carduus pycnocephalus	Italian thistle	NL
Erigeron canadensis	Canada horseweed	FAC
Conium maculatum	Poison hemlock	FACW
Cynodon dactylon	Bermuda grass	FAC
Distichlis spicata	Inland saltgrass	FAC
Erodium cicutarium	Redstem filaree	NL
Geranium dissectum	Cutleaf geranium	NL
Hordeum murinum	Foxtail barley	FACU
Lactuca serriola	Prickly lettuce	FAC
Festuca perennis	Italian ryegrass	FAC
Silybum marianum	Blessed milk thistle	NL
Xanthium strumarium	Cocklebur	FAC
Source: Lichvar and Kartesz 2013		

Responses to Comments

The Initial Study/Mitigated Negative Declaration was released for a 30-day public review and comment period from on June 9, 2014 to July 8, 2014. The following written comments were received.

Date	Agency/Organization	Designator
June 16, 2014	San Joaquin County Environmental Health Department	A
June 16, 2014	Central Valley Flood Protection Board	B
June 24, 2014	San Joaquin Valley Air Pollution Control District	C
June 30, 2014	Central Valley Regional Water Quality Control Board	D
July 9, 2014	Governor's Office of Planning and Research State Clearinghouse and Planning Unit	E

All comment letters have been reproduced in their entirety on the following pages. Letters have been assigned an alphabetical designator (e.g., Comment Letter A, etc.). If specific comments are identified, the comments will be assigned an alphanumeric designator. All responses comments will follow the letter. Any changes to the Initial Study/Mitigated Negative Declaration will be indicated by the following: new text is shown in underline format and **bold** and deleted text is shown in ~~strikethrough~~ format for that section only.

San Joaquin County
Environmental Health Department
1868 East Hazelton Avenue
Stockton, California 95205-6232

Website: www.sjgov.org/ehd
Phone: (209) 468-3420
Fax: (209) 464-0138

DIRECTOR
Donna Heran, REHS

PROGRAM COORDINATORS
Robert McClellon, REHS
Jeff Carruesco, REHS, RDI
Kasey Foley, REHS
Linda Turkatte, REHS
Rodney Estrada, REHS
Adrienne Ellsaesser, REHS

COMMENT LETTER A

June 16, 2014

Mark Hopkins, Senior Planner
San Joaquin County Department of Public Works
1810 East Hazelton Avenue
Stockton, California 95205

Subject: AUSTIN ROAD BRIDGE SCOUR MITIGTION PROJECT, SAN JOAQUIN COUNTY

The San Joaquin County Environmental Health Department (EHD) has reviewed the San Joaquin County Notice of Intent to Adopt a Mitigated Negative Declaration on the above referenced project and has no comments to impose on this application.

If you have any questions, please call Frank Girardi, Lead Senior REHS, at (209) 468-3420.

Frank Girardi
Lead Senior REHS

COMMENT LETTER A

Agency:

San Joaquin County Environmental Health Department

Subject:

Van Allen Road Bridge Scour Mitigation Project, San Joaquin County

Dear Mr. Girardi,

San Joaquin County Public Works thanks you for your comments.

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

COMMENT LETTER B

June 16, 2014

Mr. Mark Hopkins
San Joaquin County
1810 East Hazelton Avenue
Stockton, California 95205

Subject: CEQA Comments: Austin Road Bridge Scour Mitigation Project, Mitigated Negative Declaration, SCH No. 2014062027

Location: San Joaquin County

Dear Mr. Hopkins:

Central Valley Flood Protection Board (Board) staff has reviewed the subject document and provides the following comments:

The proposed project is located within Littlejohn's Creek which is under Board jurisdiction. The Board enforces its Title 23, California Code of Regulations (23 CCR) for the construction, maintenance, and protection of adopted plans of flood control that protect public lands from floods. Adopted plans of flood control include federal-State facilities of the State Plan of Flood Control, regulated streams, and designated floodways. The geographic extent of Board jurisdiction includes the Central Valley, and all tributaries and distributaries of the Sacramento and San Joaquin Rivers, and the Tulare and Buena Vista basins (23 CCR, Section 2).

Pursuant to 23 CCR a Board permit is required prior to working in the Board's jurisdiction for the following:

- Placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (23 CCR Section 6);

- Existing structures that predate permitting, or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (23 CCR Section 6);

- Vegetation plantings require submission of detailed design drawings; identification of vegetation type; plant and tree names (both common and scientific); quantities of each type of plant and tree; spacing and irrigation method; a vegetative management plan for maintenance to prevent the interference with flood control operations, levee maintenance, inspection, and flood fight procedures (23 CCR Section 131).

Other local, federal and State agency permits may be required and are the responsibility of the applicant to obtain.

Board permit application forms and our complete 23 CCR regulations can be found on our website at http://www.cvfpb.ca.gov/. Maps of the Board's jurisdiction including all tributaries and distributaries of the Sacramento and San Joaquin Rivers, and Board designated floodways are also available on a Department of Water Resources website at http://gis.bam.water.ca.gov/bam/.

Additional Considerations Related to Potential Impacts of Vegetation and Hydraulics

Accumulation and establishment of woody vegetation that is not managed may have negative impacts on channel capacity and may increase the potential for levee over-topping or other failure. When vegetation develops and becomes habitat for wildlife, maintenance to initial baseline conditions typically becomes more difficult as the removal of vegetative growth may be subject to federal and State resource agency requirements for on-site mitigation. The proposed project should include mitigation measures to avoid decreasing floodway channel capacity.

Adverse hydraulic impacts of proposed encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The proposed project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. If possible off-site mitigation outside of the Board's jurisdiction should be used when mitigating for vegetation removed at the project location.

If you have any questions please contact James Herota at (916) 574-0651, or via email at james.herota@water.ca.gov.

Sincerely,

Len Marino, P.E.
Chief Engineer

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

COMMENT LETTER B

Agency:

Central Valley Flood Protection Board

Subject:

CEQA Comments: Austin Road Bridge Scour Mitigation Project, Mitigated Negative Declaration, SCH No. 2014062027

Dear Mr. Marino,

San Joaquin County Public Works thanks you for your comment. This project will require permitting be the Central Valley Flood Protection Board and several other governing agencies within the project limits. San Joaquin County Public Works will adhere to all terms and conditions within the assigned permits.

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JUN 2 4 2014

COMMENT LETTER C

Mark Hopkins
San Joaquin County
Public Works Department
1810 E. Hazelton Avenue
Stockton, CA 95205

Project: Austin Road Bridge Scour Mitigation Project, San Joaquin County

District CEQA Reference No: 20140392

Dear Mr. Hopkins:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above consisting of a proposal to develop a uniform channel section supporting Austin Road Bridge with scour countermeasures to prevent channel degradation of South Littlejohn's Creek, located at Austin Road Bridge (29C-259) across the North Fork of South Littlejohn's Creek, in San Joaquin County, CA. The District offers the following comments:

1. Based on information provided to the District, project specific emissions of criteria pollutants are not expected to exceed District significance thresholds of 10 tons/year NOX, 10 ton/year ROG, and 15 tons/year PM10. Therefore, the District concludes that project specific criteria pollutant emissions would have no significant adverse impact on air quality.

2. Based on information provided to the District, the District concludes that the proposed project is not subject to District Rule 9510 (Indirect Source Review).

3. The proposed project may be subject to District Rules and Regulations, including: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants). The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

If you have any questions or require further information, please call Angel Lor, at (559) 230- 5808.

Sincerely,

Arnaud Marjollet
Director of Permit Services

for: Chay Thao
Program Manager

AM: al

COMMENT LETTER C

Agency:

San Joaquin Valley Air Pollution Control District

Subject:

Notice to Adopt a mitigated Negative Declaration for Van Allen Road Bridge Scour Mitigation Project
District CEQA Reference No: 20140135

Dear Mr. Marjollet,

Thank you for your comments; San Joaquin County Department of Public Works understands and appreciates the time it took to respond in this letter for this project.

1) For comment #1, San Joaquin County Department of Public Works understands this project is not expected to exceed San Joaquin Valley Air Pollution Control District significance thresholds of 10 tons/year NOX, 10 tons/year ROG, and 15 tons/year PM10.

2) For comment #2, San Joaquin County Department of Public Works understands this project is not subject to District Rule 9510.

3) For comment #3, San Joaquin County Department of Public Works understands the significance of your comment and has addressed the District Rules and Regulations within construction specification.

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

COMMENT LETTER D

30 June 2014

Mark Hopkins
San Joaquin County Public Works Department
1810 East Hazelton Avenue
Stockton, CA 95205

CERTIFIED MAIL
7013 2250 0000 3465 2541

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, AUSTIN ROAD BRIDGE SCOUR MITIGATION PROJECT, SCH NO. 2014062027, SAN JOAQUIN COUNTY

Pursuant to the State Clearinghouse's 9 June 2014 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Austin Road Bridge Scour Mitigation Project, located in San Joaquin County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.

Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

COMMENT LETTER D

Agency:

Central Valley Regional Water Quality Control Board

Subject:

Comments to Request For Review For The Draft Mitigated Negative Declaration, Austin Road Bridge Scour Mitigation Project, SCH NO. 2014062027, San Joaquin County

Dear Mr. Cleak,

Thank you for your comments. San Joaquin County Public Works understands and appreciates the responsibility your agency has been delegated. This project will require permitting be the Central Valley Regional Water Quality Control Board and several other governing agencies within the project limits. San Joaquin County Public Works will adhere to all terms and conditions within the assigned permits .

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

COMMENT LETTER E

July 9, 2014

Mark Hopkins
San Joaquin County
1810 East Hazelton Avenue
Stockton, CA 95205

Subject: Austin Road Bridge Scour Mitigation Project
SCH#: 2014062027

Dear Mark Hopkins:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on July 8, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2014062027
Project Title Austin Road Bridge Scour Mitigation Project
Lead Agency San Joaquin County

Type MND Mitigated Negative Declaration

Description The County proposes to develop a uniform channel section supporting Austin Road Bridge with scour countermeasures to prevent channel degradation of South Littlejohn's Creek. The proposed project will include the following actions: clearing and grubbing along the creek banks; installation of a temporary access ramp and coffer dams, or alternative diversion methods, to access the creek channel during construction while the creek is flowing; excavation of the existing earthen channel bottom and banks to an approximate depth of 4.5 feet; placement of a layer of Caltrans Light Class Rock Slope Protection (RSP) in the excavated channel bottom to conform to the upstream and downstream conditions with staggered concrete baffles to hold the RSP in place; and potential placement of RSP in the form of riprap along the embankment to reduce depths of excavation.

Lead Agency Contact

Name Mark Hopkins
Agency San Joaquin County
Phone 209 468 3085 **Fax**
email
Address 1810 East Hazelton Avenue
City Stockton **State** CA **Zip** 95205

Project Location

County San Joaquin
City Stockton
Region
Lat / Long 37° 53' 9.3" N / 121° 11' 1.5" W
Cross Streets Arch Road
Parcel No.
Township 1N **Range** 7E **Section** 34/35 **Base**

Proximity to:

Highways Hwy 99
Airports
Railways BNSF
Waterways North Fork South Littlejohn's Creek
Schools
Land Use Resource Conservation (OS/RC) for the General Plan and General Agriculture (AG Zone) for County Zoning

Project Issues Biological Resources; Water Quality

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 2; Department of Parks and Recreation; Central Valley Flood Protection Board; Department of Water Resources; California Highway Patrol; Caltrans, District 10; Air Resources Board; Air Resources Board, Transportation Projects; Regional Water Quality Control Bd., Region 5 (Sacramento); Native American Heritage Commission; Public Utilities Commission

Date Received 06/09/2014 **Start of Review** 06/09/2014 **End of Review** 07/08/2014

CLEAR
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CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

RECEIVED

JUL 01 2014

STATE CLEARING HOUSE

30 June 2014

Mark Hopkins
San Joaquin County Public Works Department
1810 East Hazelton Avenue
Stockton, CA 95205

CERTIFIED MAIL
7013 2250 0000 3465 2541

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, AUSTIN ROAD BRIDGE SCOUR MITIGATION PROJECT, SCH NO. 2014062027, SAN JOAQUIN COUNTY

Pursuant to the State Clearinghouse's 9 June 2014 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Austin Road Bridge Scour Mitigation Project, located in San Joaquin County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

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June 16, 2014

Mr. Mark Hopkins
San Joaquin County
1810 East Hazelton Avenue
Stockton, California 95205

Subject: CEQA Comments: Austin Road Bridge Scour Mitigation Project, Mitigated Negative Declaration, SCH No. 2014062027

Location: San Joaquin County

Dear Mr. Hopkins:

Central Valley Flood Protection Board (Board) staff has reviewed the subject document and provides the following comments:

The proposed project is located within Littlejohn's Creek which is under Board jurisdiction. The Board enforces its Title 23, California Code of Regulations (23 CCR) for the construction, maintenance, and protection of adopted plans of flood control that protect public lands from floods. Adopted plans of flood control include federal-State facilities of the State Plan of Flood Control, regulated streams, and designated floodways. The geographic extent of Board jurisdiction includes the Central Valley, and all tributaries and distributaries of the Sacramento and San Joaquin Rivers, and the Tulare and Buena Vista basins (23 CCR, Section 2).

Pursuant to 23 CCR a Board permit is required prior to working in the Board's jurisdiction for the following:

- Placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (23 CCR Section 6);

- Existing structures that predate permitting, or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (23 CCR Section 6);

- Vegetation plantings require submission of detailed design drawings; identification of vegetation type; plant and tree names (both common and scientific); quantities of each type of plant and tree; spacing and irrigation method; a vegetative management plan for maintenance to prevent the interference with flood control operations, levee maintenance, inspection, and flood fight procedures (23 CCR Section 131).

Other local, federal and State agency permits may be required and are the responsibility of the applicant to obtain.

Board permit application forms and our complete 23 CCR regulations can be found on our website at http://www.cvfpb.ca.gov/. Maps of the Board's jurisdiction including all tributaries and distributaries of the Sacramento and San Joaquin Rivers, and Board designated floodways are also available on a Department of Water Resources website at http://gis.bam.water.ca.gov/bam/.

Additional Considerations Related to Potential Impacts of Vegetation and Hydraulics

Accumulation and establishment of woody vegetation that is not managed may have negative impacts on channel capacity and may increase the potential for levee over-topping or other failure. When vegetation develops and becomes habitat for wildlife, maintenance to initial baseline conditions typically becomes more difficult as the removal of vegetative growth may be subject to federal and State resource agency requirements for on-site mitigation. The proposed project should include mitigation measures to avoid decreasing floodway channel capacity.

Adverse hydraulic impacts of proposed encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The proposed project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. If possible off-site mitigation outside of the Board's jurisdiction should be used when mitigating for vegetation removed at the project location.

If you have any questions please contact James Herota at (916) 574-0651, or via email at james.herota@water.ca.gov.

Sincerely,

Len Marino, P.E.
Chief Engineer

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

THOMAS M. GAU
DIRECTOR

FRITZ BUCHMAN
DEPUTY DIRECTOR
MICHAEL SELLING
DEPUTY DIRECTOR
JIM STONE
DEPUTY DIRECTOR
ROGER JANES
BUSINESS ADMINISTRATOR

P. O. BOX 1810 - 1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
(209) 468-3000 FAX (209) 468-2999
www.co.san-joaquin.ca.us

Working for YOU

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

TO: ___Office of Planning and Research
1400 Tenth Street
Sacramento, California 95814

__ San Joaquin County Clerk
44 N. San Joaquin Street, Suite 260
Stockton, California 95202

FROM: San Joaquin County Public Works Department
1810 E. Hazelton Avenue
Stockton, California 95205

PROJECT: AUSTIN ROAD BRIDGE SCOUR MITIGATION PROJECT, SAN JOAQUIN COUNTY

The San Joaquin County Department of Public Works has prepared an environmental evaluation document (Initial Study) in accordance with the California Environmental Quality Act (CEQA) and intends to adopt a Mitigated Negative Declaration (MND) based on the finding that there is no substantial evidence that the action as proposed will have a significant effect on the environment. The reasons to support this finding are documented in the Initial Study.

PROJECT LOCATION

Austin Road Bridge (29C-259) across the North Fork of South Littlejohns Creek

BACKGROUND

Recent history has shown that the channel bed along South Littlejohn's Creek has experienced minor erosion in the upper reaches of the creek, increasing the side slopes. Streambed erosion increased due to a constriction of the channel from the bridge abutments and piers. The purpose of the project is to create a smooth channel transition throughout the project area and to reduce channel degradation at abutments and piers that lead to bridge instability.

PROPOSED PROJECT DESCRIPTION

The County proposes to develop a uniform channel section supporting Austin Road Bridge with scour countermeasures to prevent channel degradation of South Littlejohn's Creek. Construction will occur within previously disturbed areas of County right-of-way, while staging will require temporary easements on adjacent properties. The proposed project will include the following actions:

- Clearing and grubbing along the creek banks.
- Installation of a temporary access ramp and coffer dams, or alternative diversion methods, to access the creek channel during construction while the creek is flowing.
- Excavation of the existing earthen channel bottom and banks to an approximate depth of 4.5 feet.
- Placement of a layer of Caltrans Light Class Rock Slope Protection (RSP) in the excavated channel bottom to conform to the upstream and downstream conditions with staggered concrete baffles to hold the RSP in place.
- Potential placement of RSP in the form of riprap along the embankment to reduce depths of excavation.

PROJECT: AUSTIN ROAD BRIDGE SCOUR MITIGATION PROJECT, SAN JOAQUIN COUNTY

HAZARDOUS WASTE PRESENCE

This project has no known association with identified hazardous waste sites pursuant to 65962.5 of the Government Code.

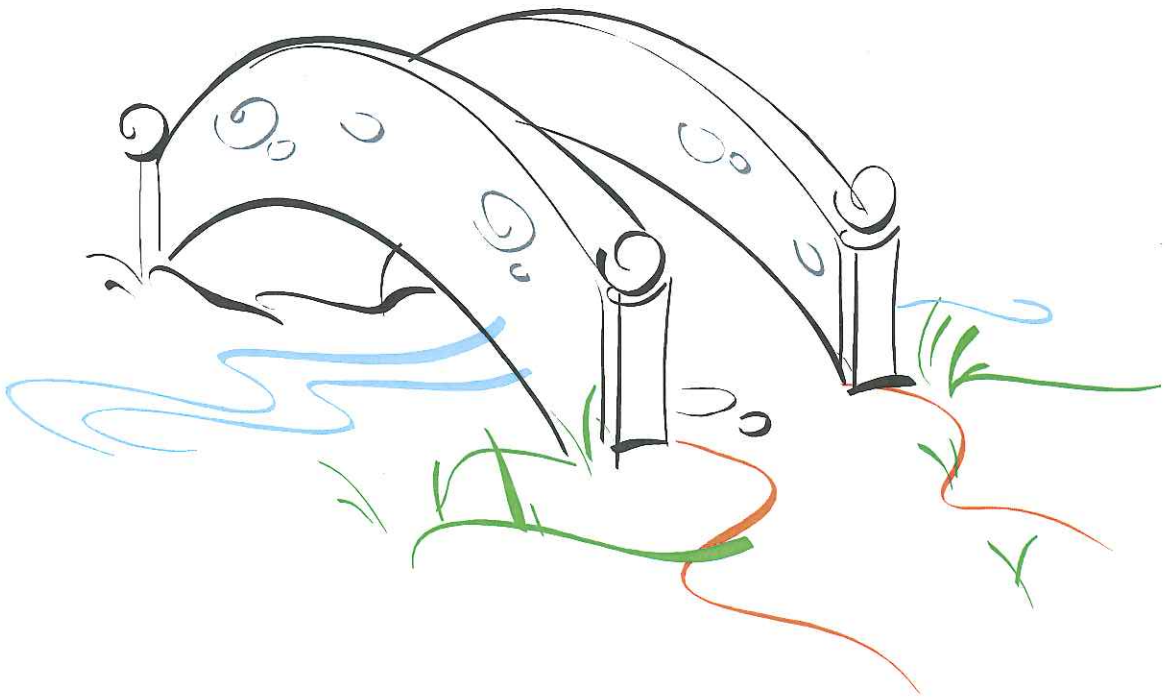
A copy of the Initial Study/ Mitigated Negative Declaration may be reviewed at the following locations:

- San Joaquin County Department of Public Works, 1810 East Hazelton Avenue, Stockton, California 95205 (Copies are available for a fee at this location.)

- San Joaquin County Department of Public Works website: http://www.sjgov.org/pubworks/

This Notice of Intent is being sent to applicable local public agencies as well as organizations and individuals of local interest. Written comments on this document may be submitted during the 30-day public review period which begins **Monday June 9, 2014** and must be received by the San Joaquin County Public Works Department no later than **5:00 p.m.** on **Wednesday July 9, 2014**. Contact Amy Spitzer, Assistant Planner, at (209) 468-8494 and aspitzer@sjgov.org or Mark Hopkins, Senior Planner, at (209) 468-3085 or mhopkins@sjgov.org for questions.

Austin Road Bridge Scour Mitigation Project



Initial Study/Mitigated Negative Declaration

May 2014

Public Works
San Joaquin County
Working for YOU

CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

[Pursuant to Public Resources Code Section 21080(c) and California Code of Regulations, Title 14, Sections 15070-15071]

PROJECT TITLE

Austin Road Bridge Scour Mitigation Project

PROJECT LOCATION

Austin Road Bridge (29C-259) across the North Fork of South Littlejohns Creek (Figure1)

PROJECT APPLICANT

San Joaquin County Public Works Department (SJCPWD) (Lead Agency)
1810 E. Hazelton Avenue
Stockton, California 95205

CONTACT

Amy Spitzer, Assistant Planner
Phone: (209) 468-8494 FAX: (209) 468-2999
Email: aspitzer@sjgov.org

In compliance with the California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000, et seq.), this Initial Study has been prepared to determine whether an Environmental Impact Report (EIR) or a Negative Declaration needs to be prepared or to identify the significant environmental effects to be analyzed in an EIR.

GENERAL PLAN AND ZONING DESIGNATIONS

The Austin Road Bridge Scour Mitigation land designation is within the Resource Conservation (OS/RC) for the General Plan and General Agriculture (AG Zone) for County Zoning. The General Plan designation provides for areas with significant resources that generally are to remain in open space. The County Zoning is established to preserve agricultural lands for the continuation of commercial agriculture enterprises. Minimum parcel sizes within the AG Zone are 20, 40, 80, and 160 acres, as specified by the precise zoning.

EXISTING SETTING

Austin Road Bridge is a two span structure with a continuous reinforced concrete (RC) flat slab on RC wall piers and RC wall abutments with "U" wing-walls. The bridge is 28 feet wide and 37 feet in length, with an average daily trip of 869 vehicles a day including heavy truck traffic.

BACKGROUND

Recent history has shown that the channel bed along South Littlejohns Creek has experienced minor erosion in the upper reaches of the creek, increasing the side slopes. Streambed erosion increased due to a constriction of the channel from the bridge abutments and piers. The purpose of the project is to create a smooth channel transition throughout the project area and to reduce channel degradation at abutments and piers that lead to bridge instability.

PROPOSED PROJECT DESCRIPTION

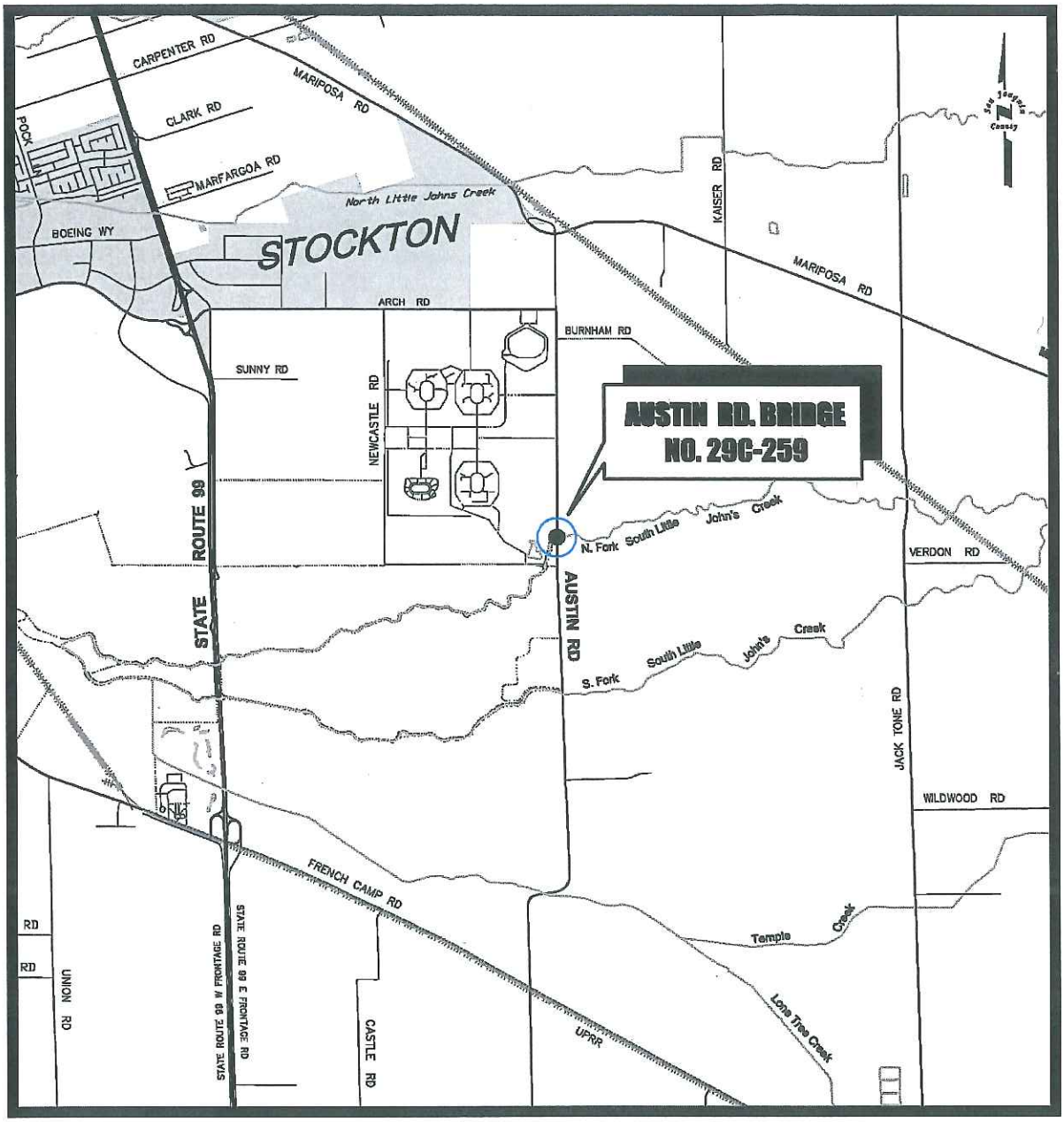
The County proposes to develop a uniform channel section supporting Austin Road Bridge with scour countermeasures to prevent channel degradation of the North fork of South Littlejohns Creek. Construction will occur within previously disturbed areas of County right-of-way, while staging will require temporary easements on adjacent properties. The proposed project will include the following actions:

- Clearing and grubbing along the creek banks.
- Installation of a temporary access ramp and coffer dams, or alternative diversion methods, to access the creek channel during construction while the creek is flowing.

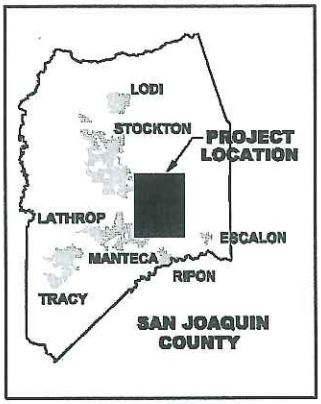
- Excavation of the existing earthen channel bottom and banks to an approximate depth of 4.5 feet.
- Placement of a layer of Caltrans Light Class Rock Slope Protection (RSP) in the excavated channel bottom to conform to the upstream and downstream conditions with staggered concrete baffles to hold the RSP in place.
- Potential placement of RSP in the form of riprap along the embankment to reduce depths of excavation.

ALTERNATIVES CONSIDERED

Alternatives considered: "no build".



— VICINITY MAP —



AUSTIN ROAD BRIDGE NO. 29C-259 over N. FORK S. LITTLE JOHNS CREEK

NO SCALE
DATE: May 3, 2010
SAN JOAQUIN COUNTY, Dept. of Public Works
The County of San Joaquin does not warrant the accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.
\\sjpwgov.org\shares\Engineering\EBridge\BRIDGE\29C-259 AUSTIN ROAD\Drawings\259 Vicinity Map.dwg .

Figure 1

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

DETERMINATION:

On the basis of this initial evaluation:

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

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

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

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

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

Amy Spitzer, Assistant Planner
San Joaquin County Public Works Department

5/23/14
Date

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

San Joaquin County is centrally located in the agricultural heartland of California, known as the San Joaquin Valley. The terrain is generally level with the foothills of the Diablo Range to the southwest and the foothills of the Sierra Nevada Range to the east. In addition to the vast acreage of agricultural land, a complex network of sloughs, canals, rivers, and creeks forms a distinctive landscape. The Delta wetlands, river corridors, valley oak tree groves, and sloping foothills and ridges of the Diablo and Sierra Nevada Ranges are the key scenic landscape features in San Joaquin County (Baseline 1992).

The County has designated several roads as scenic routes. These routes were selected based on several factors, including those roads which lead to recreation areas, exhibit scenery with agricultural/rural values or topographical interest, provide access to historical sites, or offer views of waterways (Baseline 1992).

Impact Discussion:

a – d) The project and surrounding area consists of rural and agricultural property. There are no designated scenic vistas or scenic highways within the vicinity of the project area. While the area has a visual character or quality of central valley farmland, the proposed project will not have an impact on the overall setting or create a new source of substantial light or glare, which would adversely affect day or nighttime views; therefore there will be no impact.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

II. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

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 of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b) Conflict with existing zoning for agriculture use, or a Williamson Act contract?	☐	☐	☐	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	■
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

The Important Farmland Inventory System, initiated in 1975 by the U.S. Department of Agriculture Soil Conservation Service (now known as the Natural Resources Conservation Service [NRCS]), classifies land according to soil and climatic characteristics (Baseline Environmental Consulting 1992). In order to be shown on the Farmland Mapping and Monitoring Program's (FMMP) Important Farmland Maps as Prime Farmland and Prime Farmland of Statewide Importance, the land must have been used for irrigated agricultural production at some time during the four years prior to the Important Farmland Map date, which is determined by FMMP staff during examination of current aerial photos, local comment letters, and field verification, and must meet the physical and chemical soil criteria as determined by the NRCS (NRCS 2006).

The California Land Conservation Act of 1965 (commonly known as the Williamson Act) established a voluntary tax incentive program for preserving agricultural and open space lands. A property owner enters into a 10-year contract with the County, which places restrictions on the land in exchange for tax savings. The property is taxed according to the income it is capable of generating from agriculture and other compatible uses, rather than its full market value. Williamson Act contracts are renewed automatically each year unless they are canceled or a Notice of Non-renewal is filed with the County (Baseline 1992).

According to the Land Cover map by the State of California's Department of Forestry and Fire Protection Department, agricultural land is considered to make up the vast majority of San Joaquin County and the project area. As such, there is no forest land within the project area.

Impact Discussion:

a-e) The project and surrounding area consists of rural and agricultural property. The project will be placing scour mitigation measure within the channel, which will not require conversion of land around the project; therefore, there will be no impact.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	■	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	■	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	■
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	■	☐

San Joaquin County is located at the northern end of the San Joaquin Valley Air Basin (SJVAB). The pollution potential is very high due to the topographic and meteorological conditions which often trap air pollutants in the SJVAB. Air quality is determined primarily by the type and amount of contaminants emitted into the atmosphere, the size and topography of the basin, and meteorological conditions. The low mixing heights and light winds typical of the SJVAB are conducive to the accumulation of air pollutants (San Joaquin County 1992).

The SJVAB does not currently meet health-based standards set by the EPA for ozone and particulate matter. Ozone is formed when heat and sunlight transform volatile organic compounds and nitrogen oxides from vehicle exhaust, industrial processes, and other operations, resulting in smog that is trapped in the valley because of the surrounding mountain ranges. Particulate matter is small particles of man-made compounds, soot, ash, or dust, suspended in the air. In addition to health concerns, ozone damages crops, ornamental vegetation, and man-made materials, while particulate matter obscures visibility (SJVAPCD 2006).

The following table identifies health effects of some of the common pollutants found in our air, and examples of some of the sources of these pollutants (SJVAPCD 2007):

POLLUTANT	HEALTH EFFECTS	EXAMPLES OF SOURCES
Particulate matter (PM10: Less than or Equal to 10 Microns)	• Increased respiratory disease • Lung damage • Premature death	• Cars and truck especially diesels • Fireplaces, woodstoves • Windblown dust from roadways, agriculture and construction
Ozone (O_3)	• Breathing difficulties • Lung damage	• Formed by chemical reactions of air pollutants in the presence of sunlight. Common sources: motor vehicles, industries, and consumer products
Carbon monoxide (CO)	• Chest pain in heart patients • Headaches, nausea • Reduced mental alertness • Death at very high levels	• Any source that burns fuel such as motor vehicles, construction and farming equipment and residential heaters and stoves
Nitrogen dioxide (NO_2)	• Lung damage	• See Carbon Monoxide sources
Toxic air contaminants	• Cancer • Chronic eye, lung or skin irritation • Neurological and reproductive disorders	• Motor vehicles, especially diesel • Industrial sources such as chrome and platers • Neighborhood businesses such as dry cleaners and service stations • Building materials and products

Sensitive Receptors

Sensitive receptors are locations of human populations, such as residences, hospitals, schools, day care centers, retirement homes, and convalescent facilities where there is reasonable expectation of continuous human exposure to poor air quality standards (CARCB 2007).

Impact Discussion:

a, b) The proposed project would not conflict with, or obstruct, implementation of the applicable air quality plan, violate any air quality standard, or contribute substantially to an existing or projected air quality violation. Construction of the project could result in temporary marginal pollutants and/or odors associated with construction equipment and dust from earthmoving activities; however, construction activities would be in compliance with the SJVAPCD fugitive dust control requirements for construction sites to reduce any impacts to less than significant.

c) A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates set forth in the applicable air quality plan. Accordingly, proposed projects need to be evaluated to determine whether they would generate population and employment growth, and if so, whether that growth would exceed the growth rates specified in the relevant air plans. The proposed project would not induce population or employment growth, for this is a scour mitigation project. Therefore, the proposed project would have no impact.

d, e) Although, there are sensitive receptors or substantial numbers of people within the vicinity of the project area that maybe exposed to air emissions generated from the construction of this project. The project could result in temporary marginal pollutants and/or odors associated with construction equipment and dust from earthmoving activities; however, construction activities would be in compliance with the SJVAPCD fugitive dust control requirements for construction sites to reduce any impacts to less than significant.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES				
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?	☐	■	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	■	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	■	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	■
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

Regulatory Setting

In 1973, the federal Endangered Species Act (ESA) was passed by Congress to protect ecosystems supporting special-status species and to be administered by the U.S. Fish and Wildlife Service (USFWS). The California Endangered Species Act (CESA) was passed as a parallel act to be administered by the California Department of Fish and Game (CDFG). Special-status species include:

- USFWS-designated listing of threatened or endangered species, as well as candidate species;
- CDFG-designated listing of rare, threatened, or endangered species, as well as candidate species;
- Species considered to be rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those identified in the Inventory of Rare and Endangered Vascular Plants of California by the California Native Plant Society; and
- Other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing, or rejection for state or federal status, such as Species of Special Concern designated by the CDFG.

The USFWS and CDFG both publish lists of special-status species, which satisfy criteria classifying them as endangered. Species that have been proposed for listing, but have not yet been accepted are classified as candidate species. Generally, the term endangered (federal, state) refers to a species that is in danger of becoming extinct throughout all or a significant portion of its range, while a threatened (federal, state) or rare (state) species is one that could become endangered in the foreseeable future.

Special Status Species

Database listings from the USFWS and CDFG for the United States Geological Survey (USGS) quadrangle Stockton East was reviewed to determine if there have been any occurrences of special status species within the vicinity of the project area. The results were narrowed to a 1-mile radius of the project area and confirmed by the Natural Environment Study performed by AECOM (March 2013).

No special-status plant species were detected during the reconnaissance-level survey conducted in March 2012. For each species listed in the USFWS special list and CNDDB and CNPA database records, habitat requirements were assessed and compared to the habitats within the BSA and immediate vicinity in order to determine their potential to occur. The only special-status plant species with potential to occur is Sanford's arrowhead (*Saggitaria sanfordii*).This species was determined to be absent from the BSA during the biological surveys conducted in the BSA.

There are several special status wildlife species recorded within the quadrangle: delta smelt (*Hypomesu transpacificus*), giant garter snake (*Thamnophis gigas*), Midvalley fairy shrimp (*Branchinecta mesovallensis*), Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus),* vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus parkardi*), Northwestern pond turtle (*Actinemys marmorata marmorata*), California tiger salamander (*Ambystoma californiense*), White-tailed kite (*Elanus leucurus),* Western burrowing owl (*Athene cunicularia*), Loggerhead shrike (*Lanius* ludovicianus), Tricolored blackbird (*Agelaius tricolor*), Yellow-headed blackbird (*Xanthocephalus xanthocephalus)*, Swainson's hawk (*Buteo swainsoni*), Pallid bat (*Antrozus pallidus)*, Townsend's big-eared bat (*Corynorhinus townsendii townsendii)*, Greater western mastiff bat (*Eumops perotis californicus)*, and riparian brush rabbit (*Sylvilagus bachmani riparius*); however, Littlejohns Creek provides very low quality habitat potential for sensitive species. The project area and its vicinity provides potential nesting habitat and foraging habitat for a special status species Swainson's hawk and other protected non-special-status migratory birds and raptors whose nests and eggs are protected by the California Fish and Game Code Sections 3503 and 3503.5 and the federal Migratory Bird Treaty Act (MBTA).

In the Central Valley, birds like Swainson's hawk, white-tailed kites, and loggerhead shrikes typically nest in oak or cottonwood trees in or near riparian habitats, oak groves, roadside trees, and isolated

trees. They prefer nesting sites that provide sweeping views of nearby foraging grounds consisting of grasslands, irrigated pastures, alfalfa, hay, row crops, and grain crops. According to the CDFG database search, 31 Swainson's hawk nest sites and 8 burrowing owl nest sites were documented within the 5-mile radius, whereas white-tailed kite and loggerhead shrike were not.

Impact Discussion:

a) San Joaquin County Department of Public Works is proposing scour mitigation measures within the channel. Noise associated with construction activities could result in the disturbance of nesting special-status and protected non-special status migratory birds and raptors, if present in the area. Also, construction will be within a low flow period reducing conflicts with any fisheries migrating through the area. To avoid construction-related impacts, the SJCPWD will require a qualified biologist to conduct a pre-construction survey for nesting birds if construction occurs within the breeding/nesting season and observe fish and/or water levels. Pre-construction survey for nesting birds has become standard practice preformed by SJCPWD for all projects occurring from February 15 to September 1 and is not considered a mitigation measure for SJCPWD. If the survey findings indicate the presence of a special status species or nesting protected species, the SJCPWD and a qualified biologist will consult with CDFG to determine the appropriate action. Therefore, the proposed project will have a less than significant impact with mitigation.

b) The project area is not located within a riparian habitat or other sensitive natural communities, as confirmed by the biological assessment performed by AECOM in March 2012. Therefore, the proposed project will have no impact.

c) Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into waters of the United States, including wetlands, without a permit issued by the U.S. Army Corps of Engineers (33 USC 1344). The proposed project will require the discharge of dredged or fill material into waters of the United States. Therefore, the proposed project will have a less than significant impact with mitigation.

d) Littlejohns Creek is a slow-moving, perennial stream that is highly managed for water control and conveyance. Native & non-native fish have the potential to or are known to occur within Littlejohns Creek in the BSA. Cliff swallow nests were observed under Austin Road Bridge during the March 2012 biological assessment reconnaissance survey (AECOM March 2013). There is potential for low quality habitat for several special status species. If construction activities during the nesting season cannot be avoided, existing cliff swallow nests on Austin Road Bridge will be removed prior to the nesting season (between September 1 and February 1) to discourage continued nesting on this structure prior to construction. An effective deterrent to cliff swallow nesting will also be installed prior to the nesting season and will be monitored for integrity and effectiveness until the project is complete. Furthermore, the County does not want to incorrectly anticipate mitigations from outside agencies until permitting is complete. Therefore, the proposed project will have a less than significant impact with mitigation.

e) The proposed project does not include the removal of trees. Therefore, the proposed project will have no impact.

f) In order to address concerns about impacts to sensitive resources, San Joaquin County adopted the *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan* (SJMSCP) in 2004. The key purpose of the SJMSCP is to 1) provide a strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses while protecting the region's agricultural economy; 2) preserve landowner property rights; 3) provide for the long-term management of plant, fish, and wildlife species, especially those that are currently listed, or may be listed in the future, under the federal and state ESA; 4) provide and maintain multiple-use

open spaces which contribute to the quality of life of the residents of San Joaquin County; and 5) accommodate a growing population while minimizing costs to project proponents and society at large. The SJMSCP is locally implemented by the San Joaquin Council of Governments (SJCOG). Participation in the SJMSCP satisfies requirements of both the state and federal ESA and ensures the impacts are mitigated below a level of significance for CEQA compliance (SJCOG 2001).

Because San Joaquin County signed the initial agreement to participate with the SJMSCP, any land conversion would anticipate participation in the SJMSCP; however, this project is working within a man-made channel and is not changing use or flow. Therefore, the proposed project will have no impact.

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

Regulatory Setting

Cultural resources in California are protected by a number of federal, state, and local regulations and ordinances. The most frequently applied legislation consists of the provisions of CEQA that provide for the documentation and protection of significant prehistoric and historic resources. Prior to the approval of discretionary projects and the commencement of agency undertakings, the potential impacts of the project on archaeological and historical resources must be considered (Public Resources Code Sections 21083.2 and 21084.1 and the CEQA Guidelines [California Code of Regulations Title 14, Section 15064.5]).

The CEQA Guidelines define a significant historical resource as "a resource listed or considered eligible for listing on the California Register of Historical Resources" (CRHR) (Public Resources Code Section 5024.1). A cultural resource may be eligible for listing on the CRHR if it:

1. is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. is associated with the lives of persons important in our past;
3. embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of an important creative individual, or possesses high artistic values; or
4. has yielded, or may be likely to yield, information important in prehistory or history.

Investigation and Native American Consultation Results

San Joaquin County did do a records search with the Central California Information Center at California State University Stanislaus and the Native American Heritage Commission (NAHC), which indicated minimal prehistoric/historical resources (July 2011). The NAHC provided contact information of Native Americans which may have information regarding the project area (July 2011). San Joaquin County sent letters to these contacts in August 2011. Furthermore, San Joaquin County created the Area of Potential Effect Map (APE), which was approved on June 2012. San Joaquin County further retained the services of a sub-consultant AECOM to confirm the record search, follow-up with Native Americans, field survey the APE area, and proved documentation of their finding to Caltrans (April 2013). AECOM products two documents: a Historic Property Survey Report and an Archaeological Survey Report. Caltrans, under authority delegated by the Federal Highway Administration, has approved the cultural documents to meet and address requirements of the National Environmental Policy Act under section 106.

Impact Discussion:

a – c) San Joaquin County Department of Public Works is proposing scour mitigation measures within the channel. AECOM confirmed the record search, follow-up with Native Americans, and proved documentation of their finding to Caltrans (April 2013). The reconnaissance-level pedestrian survey of the area did not reveal any prehistoric or historic-period resources. The archaeological sensitivity assessment suggests the APE is moderately sensitive for buried prehistoric archaeological cultural resources and has low sensitivity for buried historic-period archaeological cultural resources. While results of the records research and field survey did not yield findings of cultural, historical, or paleontological resources, or unique geologic features, the proposed project will excavate within the area, which could result in a finding. If any subsurface resources are discovered, all work will stop until a qualified archaeologist has evaluated the finding. Therefore, the proposed project will have a less-than-significant impact.

d) In accordance with the California Health and Safety Code, if human remains are uncovered, all work within the area will stop and the San Joaquin County Coroner and a professional archaeologist will be contacted to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving a notice of discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she will contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]) (www.leginfo.ca.gov). Following the coroner's findings, the archaeologist, and the NAHC-designated Most Likely Descendent (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. Therefore, the proposed project will have less-than-significant impact.

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

Geology

San Joaquin County is located in the San Joaquin Valley, which comprises the southernmost portion of the Great Valley Geomorphic Province of California. The Great Valley is an elongated lowland bounded by the tilted block of the Sierra Nevada on the east and the Coast Ranges to the west. The Sacramento River drains the northern portion and the San Joaquin River drains the southern portion (DWR 2006).

Soils

The soil type in the project area is primarily the Finrod series consisting of deep to duripan, moderately well drained soils that formed in mixed alluvium. Finrod soils are on low fan terraces and alluvial fans. The soil type is finrod clay loam.

Seismic Hazards

Seismic hazards refer to earthquake-induced *ground rupture, ground shaking, liquefaction, or water movement.* Of the known earthquake faults in San Joaquin County, none are classified by the State Geologist as active (San Joaquin County 1992, CDCS 2006). Localized ground shaking and liquefaction are the most significant seismic hazards in San Joaquin County. The most likely sources of these hazards are from the San Andreas, Hayward, Calaveras, Midland, Green Valley-Concord, or Tracy-Stockton Faults (San Joaquin County 1992).

Ground rupture can occur horizontally and/or vertically, which can cause significant damage such as cracked building foundations, destroyed roads and bridges, and broken utility lines. Ground rupture is most likely to occur along lines of previous fault systems, meaning that the southern portion of the San Joaquin County is more vulnerable to this hazard. However, ground rupture usually is restricted to earthquakes of more than 5.5 magnitude on the Richter scale. While San Joaquin County has experienced earthquakes of this magnitude in the past, there is no known occurrence of local ground rupture (San Joaquin County 1992).

Ground shaking is the most widespread effect of earthquakes, and poses a greater seismic threat than local ground rupture. Strong ground shaking from an earthquake could cause significant damage, especially to unreinforced masonry buildings built before 1933. Mobilehomes and structures not properly secured to foundations can be vulnerable during ground shaking (San Joaquin County 1992).

Liquefaction occurs when a water-saturated, cohesionless soil loses its strength and liquefies during intense and prolonged ground shaking. Areas which have the greatest potential for liquefaction are those areas where the water table is less than 50 feet below the surface and soils are predominantly clean, comprised of relatively uniform sands, and are of loose to medium density. The type of ground motion expected from large earthquakes felt in San Joaquin County is expected to be a rolling type motion, which would be less likely to cause liquefaction (San Joaquin County 1992).

Water Movement resulting from seismic activity includes landslide splashes and seismic seiches. An added hazard is flooding due to dam or levee failures. There are no historical records of seismic-generated water movements occurring in or adjacent to San Joaquin County. This should not, however, rule out the possibility of one occurring in the future. A seismically-induced wave in the Delta channels could damage levees, causing localized flooding. The occurrence of a seismic-generated landslide splash in one of the reservoirs located in San Joaquin County could result in dam failure and flooding (San Joaquin County 1992).

Geologic Hazards

Geologic hazards in San Joaquin County include *subsidence, expansive soils, erosion, and soil instability leading to landslides.* Subsidence, expansive soils, and erosion occur in the Delta, and pose serious problems for agricultural production. Slope stability hazards are most confined to the foothills and mountain terrain that border the San Joaquin Valley, the steep banks of the major rivers which pass through the Valley floor, and the levees of the Delta (San Joaquin County 1992).

Subsidence is the gradual, local settling or sinking of the earth's surface with little or no horizontal motion. It is usually the result of gas, oil, or water extraction, hydrocompaction, or peat oxidation. In San Joaquin County, subsidence is generally attributed to the overdrafting of groundwater basins and from peat oxidation of the Delta islands. Effects of subsidence include lower levees, lower islands, flooding, infrastructure failure, crop losses, disruption to recreation, and increased maintenance costs. Overdrafting a cause of subsidence, occurs when the groundwater is pumped

out faster than it can be replenished. As a result, the overlying ground sinks (San Joaquin County 1992).

Subsidence can also occur from earthquake motion, which is a settlement or shakedown of soils that can result in localized subsidence. This settlement is likely to occur in areas where water tables are deep (otherwise liquefaction could occur), the soils are of loose to medium density, and the soil profile includes a strata of loose, clean, uniformly graded sand. However, given the expected types of ground motion from an earthquake, the potential for seismically-induced subsidence is considered relatively low (San Joaquin County 1992).

Expansive soils, such as clay, swell when they absorb water and shrink as they dry. The basic cause of expansion is the attraction and absorption of water in the expandable crystal structures of clays. Clay areas must be recognized because they can cause building foundation cracking during wet or dry periods. Moreover, various structural portions of a building may become distorted, so that doors and windows do not function properly. These hazards can be avoided through proper drainage and foundation design. The State Subdivision Map Act requires soils reports for all major subdivisions. If expansive soils are recognized through appropriate soil testing, corrective measures can be designed into the foundations (San Joaquin County 1992).

Erosion is the process of detachment and movement of soil particles by wind and water. Erosion can result in the loss of topsoil and sedimentation of the loosened soil particles can harm water quality and pose health hazards (County 1992). The Delta and southeastern portion of the County are highly susceptible to wind erosion. Water erosion is highest in areas of steep slopes, loose soils, and high rates of runoff, which are found in the southwestern and eastern portions of the County. Moderate water erosion has been identified in the lower, much gentler topography of the higher terraces and lower hills of the eastern portion of San Joaquin County. In addition, soils along the San Joaquin, Stanislaus, and Mokelumne rivers also have a moderate erosion potential (Baseline 1992).

Slope instability is a result of the downslope movement of earth materials, often referred to as mass movements (creep, mudflows, landslides, rockfalls, etc.), which is a normal geological process by which slopes are flattened and valleys are widened. Although most of these movements are considered to be minor or insignificant, there are three areas where slope failures could pose a major geological hazard: 1) the foothills and mountain terrain which border the San Joaquin Valley, 2) the steep banks of the major rivers which pass through the Valley floor, and 3) the levees of the Delta (San Joaquin County 1992).

Impact Discussion:

a: i) San Joaquin County does not have any classified active faults (CDCS 2006). While it is not possible to eliminate all seismic and geological hazards, the County's proposed project will be placing scour mitigation measures within the existing channel. Therefore, the proposed project will have no impact.

ii, iii) Localized ground shaking and liquefaction are the most significant seismic-related hazards in San Joaquin County. The project area is located within an area underlain by recent alluvial and estuarine sediments. Due to the shallow depth to groundwater, these deposits potentially include saturated granular sediments. Such sediments may liquefy under moderate to strong ground shaking from a large regional earthquake. While it is not possible to eliminate all seismic and geological hazards, the County's proposed project will be placing scour mitigation measures within the existing channel. Therefore, the proposed project will have no impact.

iv) Slope stability hazards within San Joaquin County are mostly confined to three areas: 1) the foothills and mountain terrain which border the San Joaquin Valley, 2) the steep banks of the major rivers which pass through the Valley floor, and 3) the levees of the Delta. The County's proposed project will be placing scour mitigation measures within the existing channel. Therefore, the proposed project will have no impact.

b) The project area is located in an area identified as having moderate water erosion potential. The County is placing scour mitigation measures within the channel. Therefore, the proposed project will have less that significant impact.

c) The project area is located within an area underlain by fan terrace and alluvial fan sediments. Due to the depth of the groundwater, these deposits potentially include saturated granular sediments, which may liquefy under strong ground shaking from a large regional earthquake. While it is not possible to eliminate all seismic and geological hazards, the County is placing scour mitigation measures within the channel. Therefore, the proposed project will have less that significant impact

d) San Joaquin County Department of Public Works is proposing scour mitigation measures within the channel, working with specific construction specification. Therefore, the proposed project will have less that significant impact.

e) San Joaquin County Department of Public Works is proposing scour mitigation measures within the channel, working with specific construction specification. Therefore, the proposed project will have no impact.

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

Impact Discussion:

a-b) The proposed project will be placing scour mitigation measures within the channel and will not alter the location, distribution, or traffic density of the area. Furthermore, the proposed project will not affect housing/business or create a demand for additional housing/business. Finally, the proposed project will not result in increased transportation needs. Therefore, the proposed project will have no impact.

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

Hazardous materials include all flammable, reactive, corrosive, or toxic substances, which, because of these properties, pose potential harm to the public or environment. Hazardous materials include, but are not limited to, agricultural chemicals, natural gas and petroleum, explosives, radioactive materials, and various commercial substances that are used, stored, or produced (San Joaquin County 1992).

Hazardous waste is waste, or a combination of waste, that either causes or significantly contributes to an increase in mortality or an increase in serious irreversible illness, incapacitating reversible illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of (San Joaquin County 1992).

Numerous Federal and State laws regulate hazardous materials and wastes, such as the EPA and California Department of Health Services (CDHS). However, depending on the waste, the Air Resources Board, the State Water Resources Control Board (SWRCB), or another agency may be involved. Locally, the San Joaquin County Environmental Health Department (SJCEHD), San Joaquin County Office of Emergency Services (SJCOES), and the San Joaquin Valley Air Pollution Control District (SJVAPCD) have responsibility for enforcing some state standards (San Joaquin County 1992).

The SJCEHD regulates large and small quantity hazardous waste generators, administers the underground storage tank program, and oversees the investigation and cleanup of contaminated underground tank sites under a contract with the SWRCB. Enforcement of San Joaquin County hazardous material regulations is under the jurisdiction of the SJCOES. The SJVAPCD regulates air emissions from industrial operations and contaminated soils (San Joaquin County 1992).

San Joaquin County Public Works reviewed available records pertaining to the proposed project with federal, state, and local resources.

Impact Discussion:

a–c) The proposed project will be placing scour mitigation measures within the channel. The work area is within San Joaquin County right-of-way in the North fork of South Littlejohns Creek. Therefore, the proposed project will have no impact.

d) The proposed project area is not listed on any lists identified under California Government Code Section 65962.5 (www.leginfo.ca.gov). Furthermore, the SJCEHD did not have any case files for the project area or immediately adjoining properties.

e, f) The proposed project area is located in an airport land use plan or within two miles of a public airport (Stockton Metropolitan Airport). The proposed project will not result in a safety hazard for people residing or working in the project area as the proposed project will not create developments and/or facilities that would be occupied by people. The proposed project is placing scour mitigation measures within the channel. Therefore, there will be no impact.

g) The proposed project may impair implementation of or physically interfere with an adopted emergency response plan if the bridge is closed. This is due to the long traffic detour, if a closure is implemented; however, all bridges will be open to traffic. Therefore, the proposed project will have less than significant impact.

h) According to the California Department of Forestry and Fire Protection Natural Fire Hazard map (2000), the proposed project area is not located within a fire hazard area. Furthermore, the proposed project will not create developments and/or facilities that would be occupied by people; therefore, there will be no impact.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	■	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	■
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	■	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	■
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	■	☐
f) Otherwise substantially degrade water quality?	☐	■	☐	☐
g) Place housing within a 100-year floodplain hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	■
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	■

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	■
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	■

Four major rivers flow through or along the boundaries of San Joaquin County: San Joaquin, Stanislaus, Mokelumne, and Calaveras. The flows in these rivers are controlled by dams, which impound six major reservoirs to provide water supplies and flood control. Numerous tributaries and irrigation canals drain into the major rivers, which drain into the Delta (Baseline 1992).

The San Joaquin Valley is comprised of several subbasins, identified by geologic and hydrologic barriers. The project area is located within the Eastern San Joaquin Subbasin, which is defined by the areal extent of unconsolidated to semiconsolidated sedimentary deposits that are bound by the Mokelumne River on the north and northwest; San Joaquin River on the west; Stanislaus River on the south; and consolidated bedrock on the east. It is drained by the San Joaquin River and several of its major tributaries such as the Stanislaus, Calaveras, and Mokelumne Rivers (DWR 2006).

Water-bearing formations of significance in the Eastern San Joaquin Subbasin consist of the Alluvium and Modesto/Riverbank Formations, Flood Basin Deposits, Laguna Formation, and Mehrten Formation. The Mehrten Formation is considered to be the oldest fresh water-bearing formation on the east side of the basin. Annual precipitation in this subbasin ranges from about 11 inches in the southwest to about 25 inches in the northeast (DWR 2006).

Flood Hazard Areas

High flow discharge of moderate duration in the rivers and streams of San Joaquin County can result in flooding during intense rainstorms during the rainy season (from November to April.) In addition, snow melt in the Sierra Nevada mountain range can produce high discharge flows of relatively longer duration during early spring. Flood hazards in San Joaquin County are related to 100-year floods, levee failures in the Delta, and dam failures (Baseline 1992).

100-year Floods

The boundary of the 100-year floodplain is the basic planning criterion used to demarcate unacceptable public safety hazards. The 100-year floodplain boundary defines the geographic area that would be inundated by a flood having a one percent (1%) chance of being equaled or exceeded in a given year, which is based on hydrology, topography, and the modeling of flow during predicted rainstorms. Outside the boundary, the degree of flooding risk is not considered sufficient to justify the imposition of floodplain management regulations, while inside the 100-year floodplain a tighter level of regulation is required to protect public health, safety, and welfare (San Joaquin County 1992).

San Joaquin County has been participating in the National Flood Insurance Program (NFIP) since 1973. This federal program is administered by the Federal Emergency Management Act (FEMA). The primary benefit of participating in this program is that it provides an opportunity for property owners to purchase flood insurance if their community has made a commitment to implement floodplain management regulations that are specified by FEMA. Failure to implement these regulations could result in suspension from the program (San Joaquin County 1992).

The Army Corps of Engineers, under contract to FEMA, prepared a flood insurance study report, known as the Flood Insurance Rate Map (FIRM), and a series of maps which depict locations of the 100-year flood, flood elevations, floodways, 500-year flood boundaries, and flood insurance rate zones (San Joaquin County 1992).

Levees
All of the major rivers and some streams in San Joaquin County contain levees. The potential of levee failure is highest in the Delta because these levees often contain unstable material and have been constructed on an unstable base, such as a mixture of peat and silt. A breach in a levee under non-flood conditions would be localized to the specific Delta tract, while 100-year conditions could lead to levee failure on a series of Delta islands (San Joaquin County 1992).

Dams
There are 15 major dams that have been identified as having the potential to inundate portions of San Joaquin County in the event of a dam failure. A dam failure can occur as the result of an earthquake, an isolated incident due to structural instability, or a heavy rain that exceeds design capacity (San Joaquin County 1992).

The amended Dam Safety Act (DSA) required that dam owners submit inundation maps to the Office of Emergency Services (OES) for dams whose total failure would cause the loss of life or personal injury. The DSA also requires local jurisdictions to adopt emergency procedures for the evacuation and control of populated areas below such dams. The SJCOES *Dam Failure Plan* includes a description of the dams, direction of flood waters, responsibilities and actions of individual jurisdictions, and evacuation plans (San Joaquin County 1992).

Seiches, Tsunamis, Mudflows
A seiche is a wave that oscillates in lakes, bays, or gulfs from a few minutes to a few hours as a result of seismic or atmospheric disturbances (wind and atmospheric pressure variations), including tsunamis (Merriam Webster 1994). A tsunami is a system of gravity waves formed in the sea by a large-scale disturbance of the sea level over a short duration of time. Tsunamis can be generated by submarine volcanic eruptions, coastal landslides into a bay or harbor, meteor impact, or by vertical displacement of the earth's crust along a subduction zone/fault (OES 2006). A mudslide, also called mudflow, is a flow of dirt and debris that occurs after intense rainfall or snow melt, volcanic eruptions, earthquakes and severe wildfires. The speed of the slide depends on the amount of precipitation, steepness of slope, vibration of the ground, and alternate freezing and thawing of the ground (Merriam Webster 1994).

Impact Discussion:

a, c, f) The proposed project will be placing scour mitigation measures within the channel. This requires minor excavation and the placement of a layer of ¼ ton class Rock Slope Protection (RSP) to conform to the upstream and downstream conditions. Also, the County is potential placing gabion mats along the embankment to reduce depths of excavation and potential erosion. The proposed project will be working within the channel. Project permits (404, 401, LSSA, CVFPB), SWPPP and general construction permit will govern any mitigation required. Therefore, the proposed project will have less than significant impact with mitigation.

b) The proposed project will have no impact on groundwater supplies.

d) The proposed project will have no impact, due to the work taking place within North fork of the South Littlejohns Creek.

g, h) The project area is located within a 100-year flood zone. While a 500-year floodplain zone is adjacent to the 100-year flood zone, the proposed project is not considered a critical action (i.e., fire station, hospital, school, facilities producing or storing toxic materials, etc.). In addition, the proposed project will not result in the construction of aboveground structures. Therefore, the proposed project will have no impact.

i) The SJCOES has identified that the project area and surrounding area could potentially be inundated from a failure of the Woodward Reservoir located at the eastern edge of San Joaquin County (SJCOES 2006). While the project area has the potential to be flooded whether by overtopping of creek from intense rainstorms or dam failures, the proposed project would not expose people or structures to a significant risk of loss, injury, or death as the proposed project will not result in the construction of aboveground structures that will be occupied by people. Therefore, the proposed project would have no impact.

j) Tsunamis and seiches are primarily a threat to coastal communities. Further, while the project area is located near the Delta waterways to the west, there are no bays, harbors, or enclosed bodies of water near the project area. The project area is relatively flat and therefore would not be exposed to mudflows. Therefore, there would be no impact.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	■
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	■	☐

The San Joaquin County General Plan establishes general land use categories (designations) for the unincorporated portions of San Joaquin County. The San Joaquin County zoning ordinance implements the General Plan's goals and policies.

The General Plan and zoning designation for the project is Resource Conservation (OS/RC) and General Agricultural (AG Zone)). The Resource Conservation (OS/RC) designation provides for areas with significant resources that generally are to remain in open space. The General Agriculture (AG Zone) zoning is established to preserve agricultural lands for the continuation of commercial agriculture enterprises. Minimum parcel sizes within the AG Zone are 20, 40, 80, and 160 acres, as specified by the precise zoning. Typical uses include crop production, feed and grain storage and sales, crop spraying, and animal raising and sales. The density is a maximum of one primary residence per 40 acres (San Joaquin County 1992).

Impact Discussion:

a) The proposed project will not divide an established community. Therefore, the proposed project will have no impact.

b) The proposed project is located within OS/RC and A/G designations, the proposed project will require no purchase of right-of-way. The proposed project will not conflict with any applicable land use plans, policies, or regulations of any agencies with jurisdiction over the project. The proposed project will have no impact.

c) The proposed project may be subject to the San Joaquin Multi-Species Conservation Plan, for the channel access and work done within the channel area. Participation with the San Joaquin Multi-Species Conservation Plan is voluntary and may be required for permitting purposes. Therefore, the proposed project will have less than significant impact.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES				
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?	☐	☐	☐	■
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?	☐	☐	☐	■

The primary extractive resources in San Joaquin County are sand, gravel, and natural gas. Peat soil, placer gold and silver are extracted to a much lesser extent. These are all nonrenewable resources. The San Joaquin County government seeks to protect these resources and manage their production in an environmentally sound manner. Reclamation plays a central role in determining the impact of extractive activities on the environment by controlling waste and erosion and rehabilitating streambeds. Sand and gravel are important resources used primarily for construction materials such as asphalt and concrete. Because materials are costly to transport, they are extracted as close as possible to their use (San Joaquin County 1992).

Impact Discussion:

a, b) The project area is not located within an area identified as having known mineral resources. Therefore, the proposed project will not result in the loss of availability of a known mineral resource that would be of local, regional, and statewide value. The proposed project will have no impact.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE				
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	■
b) Exposure of persons to or generation of excessive groundbourne vibration or groundborne noise levels?	☐	☐	☐	■
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	■
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■

The County Development Title states that 65 decibels (dB) or less is considered acceptable for residential development and that development shall be planned and designed to minimize noise interference from outside noise sources (San Joaquin County 1992a).

Exemptions include noise sources associated with construction provided that such activities do not take place before 6:00 a.m. or after 9 p.m. on any day. The same applies to noise sources associated with work performed by private or public utilities in the maintenance or modification of its facilities (San Joaquin County 1992a).

The sound levels associated with common noise sources and their effects are presented in the following table (San Joaquin County 1992):

TYPICAL SOUND LEVELS FOR COMMON NOISE SOURCES

Quality of Sound	Sound Level, dBA	Typical Sounds
Uncomfortably Loud (Threshold of Pain)	130	
	120	Jet takeoff at 200 feet Thunder
	110	Rock Band
Very Loud	100	
	90	Power lawn mower
		Diesel bus at 5 feet
		Motorcycle at 25 feet
	80	Inside sports car, 55 mph
Loud	70	Garbage disposal at 3 feet
		Freeway traffic at 50 feet
	60	Vacuum cleaner
		Inside department store
Quiet	50	Normal conversation
		Quiet street
	40	Average residence
		Quiet room
Very Quiet	30	
		Whisper at 5 feet
Barely Audible	20	
		Leaves rustling
	10	
Threshold of Hearing		Mosquito at 3 feet
	0	

The San Joaquin County Development Title further stipulates that proposed projects that will create new stationary noise sources or expand existing stationary noise sources shall be required to mitigate the noise levels from these stationary noise sources so as not to exceed the noise level standards specified in the following table (San Joaquin County 1992a).

MAXIMUM ALLOWABLE NOISE EXPOSURE

TRANSPORTATION NOISE SOURCES		
Noise Sensitive Land Use (Use Types)	Outdoor Activity Areas[1] dB Ldn	Interior Spaces dB Ldn
Residential	65	45
Administrative Office	--	45
Child Care Services – Child Care Centers	--	45
Community Assembly	65	45
Cultural & Library Services	--	45
Educational Services: General	--	45
Funeral & Interment Services – Undertaking	65	45
Lodging Services	65	45
Medical Services	65	45
Professional Services	--	45
Public Services (excluding Hospitals)	--	45
Recreation – Indoor Spectator	--	45
Religious Assembly	65	45

STATIONARY NOISE SOURCES	Outdoor Activity Areas	Outdoor Activity Areas
	Daytime[2] (7 a.m. to 10 p.m.)	Nighttime[2] (7 a.m. to 10 p.m.)
Hourly Equivalent Sound Level (Leq), dB	50	45
Maximum Sound Level (Lmax), dB	70	65

[1] Where the location of outdoor activity areas is unknown or is not applicable, the noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.

[2] Each of the noise level standards shall be reduced by 5 dB for impulsive noise, single tone noise, or noise consisting primarily of speech or music.

Exemptions include noise sources associated with construction provided that such activities do not take place before 6:00 a.m. or after 9 p.m. on any day. The same applies to noise sources associated with work performed by private or public utilities in the maintenance or modification of its facilities (San Joaquin County 1992a).

Impact Discussion:

a – c) The project area is primarily located in an unpopulated area, next to a major roadway in San Joaquin County. No sensitive receptors are within the project limits. The proposed project will not create any new noise sources. Therefore, there will be no impact.

d) Construction of the proposed project will create a temporary increase to the existing background noise levels from the adjacent roadway. However, there will be no impact as the area is sparsely populated and adjacent to Austin Road, which has heavy truck traffic going to Forward Landfill. However, construction of the project will occur during daylight hours, so the noise level increase will be marginal. Therefore, the proposed project will have no impact.

e, f) The project area is located within an airport land use plan or within two miles of a public airport. The proposed project will not result in the construction of aboveground structures that would be occupied by people. Therefore, there will be no impact.

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

Residences in proximity to the project area are associated with agricultural uses. The surrounding area is rural and sparsely populated.

Impact Discussion:

a-c) The proposed project will not alter the location, distribution, density or growth rate of the human population in the area. The proposed project will not affect housing or create a demand for additional housing. There is existing housing adjacent to the project area. The proposed project will not result in displacement of housing or people. Therefore, the project will have no impact.

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

Fire Protection

The Linden-Peters and Collegeville Fire Districts provide fire protection services for the project area vicinity (San Joaquin County 1992).

Police Protection

Police services in unincorporated areas of San Joaquin County are provided by the San Joaquin County Sheriff Department. The California Highway Patrol assists in maintaining routine patrols and investigating traffic accidents on public roads in unincorporated areas (San Joaquin County 1992).

Schools

The project limits is located within the Linden Unified School District (San Joaquin County 1992).

Parks

No parks exist in the project area vicinity.

Other Facilities

Other public facilities include water, wastewater, and storm drainage, which are discussed further in section XVII, Utilities and Service Systems within this document.

Impact Discussion:

a) The proposed project will not result in substantial adverse physical impacts to existing service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities, as it will not result in a development requiring additional responsibilities for these public services. Therefore, the proposed project will have no impact.

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

The surrounding area provides fishing, boating, and wildlife viewing opportunities at the nearby South Littlejohns Creek.

Impact Discussion:

a) There are no existing neighborhood/regional parks, or other recreational facilities in the project area vicinity. The proposed project will not require the need for new parks. Therefore, the proposed project will have no impact.

b) The proposed project will not include construction or expansion of recreational facilities. Therefore, the proposed project will have no impact.

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

San Joaquin County road standards propose a level of service (LOS) of C or better on all San Joaquin County roads, except in a city area where the city has adopted a LOS C, and LOS D on all freeways and state highways. Intersections shall operate at an overall LOS D or better on minor arterials and roadways of higher classification, and LOS C on all other roads (San Joaquin County 2002).

Impact Discussion:

a, b) The proposed project will not individually or cumulatively cause an increase in substantial traffic in relation to the existing traffic load and capacity of the street system, or to the existing LOS established by San Joaquin County for designated roads or highways, as there would be no increase vehicle trips. Therefore, the proposed project will have no impact.

c) The proposed project will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Therefore, the proposed project will have no impact.

d-g) The proposed project will not result in a design feature change that will substantially increase hazards, result in inadequate emergency access, result in inadequate parking capacity, or result in a conflict with adopted policies, plans, or programs supporting alternative transportation. Therefore, the proposed project will have no impact.

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

Wastewater Treatment

The collection, treatment, and disposal of wastewater in San Joaquin County occurs in primarily two ways: community collection and treatment systems with discharge into various rivers, watercourses, and the Delta, or individual on-site treatment systems with discharge into the ground (San Joaquin County 1992).

Storm Drainage
Storm water runoff is that portion of rainfall not absorbed into the soil that leaves a site by surface flow. A storm drainage system designed to prevent flooding can consist of both natural and man-made structures used to collect, convey, and store rainwater during storms. The captured storm water is eventually discharged to a natural body of water via the terminal drainage (San Joaquin County 1992).

Water Supply
The Eastern San Joaquin County Groundwater Basin is the primary source of potable domestic water in San Joaquin County. The boundaries of the groundwater basin extend from the San Joaquin-Sacramento County line and Dry Creek in the north to the Stanislaus River in the south, and from the San Joaquin River and eastern edge of the Delta to the west to approximately the San Joaquin County line to the east (DWR 2006).

Groundwater has been the preferred water source for domestic consumption because the cost of good quality, fresh groundwater is substantially less than the cost of importing treated surface water. Groundwater generally requires little treatment, whereas surface water must be filtered and treated for domestic use. In addition, it is much less costly to locate wells near the end users with short transmission lines to transport water a longer distance through larger, more capital intensive systems. However, overdrafting in the past few decades has caused a steady decline in groundwater levels in San Joaquin County, creating a zone of depression in western San Joaquin County areas and allowing the intrusion of highly saline Delta water into the groundwater basin. A number of proposed projects to provide areas with supplemental water will decrease groundwater pumping to safe yield levels (San Joaquin County 1992).

The second major source of water is supplied by major rivers such as the Mokelumne, Calaveras, Stanislaus, and San Joaquin Rivers, and reservoirs such as the Camanche, Pardee, Farmington, Woodward, New Hogan, and New Melones. Surface water is subject to a complex federal and state legal system establishing the rights of individuals and agencies to water flows through permits, licenses, court decrees, contracts, and federally prescribed flood control regulations (San Joaquin County 1992).

The third major source of water is the Delta, particularly in southwest San Joaquin County. Exporting fresh water from the Delta, however, has caused many problems. Reverse flows, declining fisheries, water quality problems, and levee erosion are among the many problems associated with water transfers from the Delta (San Joaquin County 1992).

Solid Waste
The San Joaquin County Solid Waste Division is the lead for the administration of solid wastes and the operation of related facilities. The San Joaquin County Environmental Health Department is involved in administering local and state regulations regarding waste management and has been appointed as the Local Enforcement Agency (LEA) in the unincorporated areas (San Joaquin County 1992).

Impact Discussion:
a -e) The proposed project will be placing scour mitigation measures within the North fork of the South Littlejohns Creek channel. This project is within San Joaquin County right-of-way and is on an existing channel. Therefore, the project will have no impact.

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

Impact Discussion:

a) San Joaquin County Department of Public Works is proposing placing scour mitigation measures within the North fork of the South Littlejohns Creek channel. Noise associated with construction activities could result in the disturbance of nesting special-status and protected non-special status migratory birds and raptors, if present in the area. Also, construction will be within a low flow period reducing conflicts with any fisheries migrating through the area. To avoid the construction-related impacts, SJCPWD will require a qualified biologist to conduct a pre-construction survey for nesting birds if construction occurs within the breeding/nesting season and observe fish and/or water levels. The proposed project will be working within the channel. Project permits (404, 401, LSSA, CVFPB), SWPPP and general construction permit will govern any mitigation required for water quality. Therefore, the proposed project will have less than significant impact with mitigation.

b-c) San Joaquin County Department of Public Works is proposing placing scour mitigation measures within the North fork of the South Littlejohns Creek channel. Therefore, the project will have no impact.

REFERENCES CITED

Documents, Publications:

Baseline Environmental Consulting (Baseline). May 1992. *Final Environmental Impact Report on the San Joaquin Comprehensive Planning Program.* Prepared for San Joaquin County Community Development Department, Stockton.

Department of Water Resources (DWR). January 2006. *California's Groundwater Bulletin 118, San Joaquin Valley Groundwater Basin, Eastern San Joaquin Subbasin.*

Merriam Webster. 1994. Collegiate Dictionary, 10th Edition. Definitions for mudflow, seiche, tsunami.

San Joaquin Council of Governments (SJCOG). June 2001. *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan.* www.sjcog.org.

San Joaquin County. July 1992. *San Joaquin County General Plan 2010,* Volumes I – III. Amended 2001. San Joaquin County Community Development Department.

San Joaquin County. July 1992a. *San Joaquin County Development Title.* As amended. San Joaquin County Community Development Department.

Websites:

California Air Resources Board (CARB). Website viewed April 2012. www.arb.ca.gov. Sensitive receptors information.

California Department of Fish and Game (CDFG). Website viewed May 2012. California Natural Diversity Database.

California Department of Conservation Service (CDCS). Website viewed April 2012. www.consrv.ca.gov. Earthquake fault maps.

California Department of Forestry and Fire Protection. July 2000; website viewed April 2012. http://frap.cdf.ca.gov Fire hazards maps

California Department of Transportation (Caltrans). June 2006, website viewed May 2011. *Officially Designated State Scenic Highways.* www.dot.ca.gov/hq/LandArch/scenic/schwy1.com.

California Natural Resource Conservation Service (NRCS). Website viewed April 2012. http://websoilsurvey.nrcs.usda.gov/app/ soil types

www.leginfo.ca.gov. Website viewed April 2012. California Codes.

California Office of Administrative Law. Website viewed April 2012. http://www.oal.ca.gov/. Reference to California Codes, Sections 65962.5 and Health and Safety Code Section 7050.5[b].

California Office of Emergency Services (OES). Viewed April 2012. www.oes.ca.gov. Fire hazard, tsunami info.

San Joaquin County. Website viewed April 2012. Parcel Viewer Database. San Joaquin County Community Development Department. Parcel, floodplain, general plan/zoning designations, soils information.

San Joaquin County Office of Emergency Services. Website viewed April 2012. www.sjgov.org. Dam failure plans, fire hazards.

San Joaquin Valley Air Pollution Control District (SJVAPCD). Website viewed April 2012. www.valleyair.org. Public Information. Ambient Air Quality Standards and Valley Attainment Status.

United States Code of Federal Regulations. Website viewed April 2012. Title 33, Parts 328.3, 1344. Section 404, Clean Water Act. www.access.gpo.gov.

United States Department of Agriculture. Website viewed April 2012. https://soilseries.sc.egov.usda.gov/OSD_Docs/F/FINROD.html

CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM

10-SJ-San Joaquin County			**BPMP-5929(223)**
Dist.-Co.-Rte. (or Local Agency)	P.M./P.M.	E.A/Project No.	Federal-Aid Project No. (Local Project)/Project No.

PROJECT DESCRIPTION: (Briefly describe project including need, purpose, location, limits, right-of-way requirements, and activities involved in this box. *Use Continuation Sheet, if necessary.)*

San Joaquin County Department of Public Works proposes to install scour countermeasures at Austin Road Bridge (#29C0259) over South Littlejohns Creek, southeast of Stockton in San Joaquin County. The scope of work includes channel excavation, application of rock-slope protection (RSP), staggered concrete baffles, bank excavation with vegetation removal, installation of a temporary access ramp, and temporary coffer dams. Work within the channel will occur during periods of low flow on South Littlejohns Creek. All work will occur within the County right-of-way and temporary construction easements will be required for access and staging; no work will occur on the bridge deck. Channel banks disturbed by project work will be revegetated using native grasses or other appropriate vegetative cover. The purpose of the project is to prevent bridge failure and provide a uniform channel along Littlejohns Creek. The project is needed because the channel beneath the bridge has degraded. (continued on Page 2)

CEQA COMPLIANCE *(for State Projects only)*

Based on an examination of this proposal and supporting information, the following statements are true and exceptions do not apply (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

CALTRANS CEQA DETERMINATION (Check one)

☐ **Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

☐ **Categorically Exempt. Class** . (PRC 21084; 14 CCR 15300 et seq.)

☐ **Categorically Exempt. General Rule exemption.** [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15061[b][3].)

Not applicable

Print Name: Environmental Branch Chief — Print Name: Project Manager/DLA Engineer

Signature — Date — Signature — Date

NEPA COMPLIANCE

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b).

CALTRANS NEPA DETERMINATION (Check one)

☒ **23 USC 326:** The State has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). As such, the project is categorically excluded from the requirements to prepare an environmental assessment or environmental impact statement under the National Environmental Policy Act. The State has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding dated June 07, 2013, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

- ☐ **23 CFR 771.117(c): activity (c)(___)**
- ☒ **23 CFR 771.117(d): activity (d)(_3_)**
- ☐ **Activity ___ listed in Appendix A of the MOU between FHWA and the State**

☐ **23 USC 327:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under 23 USC 327.

Julie Myrah		**Parminder Singh**	
Print Name: Environmental Branch Chief		Print Name: DLA Engineer	
Signature	Date 5/19/14	Signature	Date 05/19/14
Date of Categorical Exclusion Checklist completion: 5-14-14		Date of ECR or equivalent : 5-19-2014	

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., CE checklist, additional studies and design conditions).

February 12, 2014

CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM
Continuation Sheet

10-SJ-San Joaquin County			**BPMP-5929(223)**
Dist.-Co.-Rte. (or Local Agency)	P.M./P.M.	E.A/Project No.	Federal-Aid Project No. (Local Project)/Project No.

Continued from page 1:

Environmental Commitments:

- Preparation of a Preliminary Site Investigation for heavy metals, pesticides, and herbicides is recommended prior to start of work. Information gathered from that report will be used to create a worker health and safety plan
- Excess soils will be re-used on site or disposed of at an appropriate facility
- A Grading Plan to prevent storm water pollution will be prepared to identify specific actions and BMPs as detailed in the project Water Quality Assessment (May 2013)
- A Spill Prevention Plan will be prepared that identifies contingency measures, responsible parties, reporting requirements, and other actions as detailed in the Water Quality Assessment (May 2013)
- If project activities are expected to occur during cliff swallow nesting season (from April to August), 5/8 inch bird netting will be installed along both sides of the existing bridge between the deck and the water surface. This netting will be monitored by a qualified biologist. Inactive, empty nests can be removed prior to start of construction
- A focused survey for bats will be conducted by a qualified biologist prior to start of construction. If sensitive species are observed, appropriate exclusionary measures will be taken
- Management measures to prevent the spread of invasive species, such as those given in the project Natural Environment Study, will be implemented to comply with EO 13112
- If cultural materials are discovered during construction, including human remains, do not disturb the resources and immediately stop all work within a 60-foot radius of the discovery and within any nearby area suspected to overlie the discovery. Immediately notify all appropriate parties including the Caltrans District 10 Local Assistance archaeologist, the Local Assistance Engineer (DLAE), and the County Coroner if human remains are found. Do not move cultural materials or take them from the job site. Do not resume work within the discovery area until authorized. Additional protocols for human remains are given in the State Health and Safety Code Section §7050.5 and §5097.98

Categorical Exclusion Checklist

Dist/Co/Rte/PM:	10-SJ-San Joaquin	Fed. Aid No. (Local Project):	BPMP-5929(223)	EA/Project No.:	

SECTION 1: TYPE OF CE: Use the information in this section to determine the applicable CE and corresponding activity for this project.

1. Project is a CE under CE Assignment 23 USC 326. ☒ Yes ☐ No

If "yes", check applicable activity in one of the three tables below (activity must be listed in 23 CFR 771.117 (c) or (d) list or included in activities listed in Appendix A of the CE Assignment MOU to be eligible for 23 USC 326).

Activity Listed in 23 CFR 771.117(c)	
1 ☐	Activities which do not involve or lead directly to construction such as planning and research activities; grants for training; engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed; and Federal-aid system revisions which establish classes of highways on the Federal-aid highway system.
2 ☐	Approval of utility installations along or across a transportation facility.
3 ☐	Construction of bicycle and pedestrian lanes, paths, and facilities.
4 ☐	Activities included in the State's *highway safety plan* under 23 USC 402**.**
5 ☐	Transfer of Federal lands pursuant to 23 USC 107(d) and/or 23 USC 317 when the land transfer is in support of an action that is not otherwise subject to FHWA review under NEPA.
6 ☐	The installation of noise barriers or alterations to existing publicly owned buildings to provide for noise reduction.
7 ☐	Landscaping.
8 ☐	Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.
9[1]	The following actions for transportation facilities damaged by an incident resulting in an emergency declared by the Governor of the State and concurred in by the Secretary, or a disaster or emergency declared by the President pursuant to the Robert T. Stafford Act (42 USC 5121)[2]:
☐	(i) Emergency repairs under 23 USC 125;
☐	(ii) The repair, reconstruction, restoration, retrofitting, or replacement of any road, highway, bridge, tunnel, or transit facility (such as a ferry dock or bus transfer station), including ancillary transportation facilities (such as pedestrian/bicycle paths and bike lanes), that is in operation or under construction when damaged and the action: (A) Occurs within the existing right-of-way and in a manner that substantially conforms to the preexisting design, function, and location as the original (which may include upgrades to meet existing codes and standards as well as upgrades warranted to address conditions that have changed since the original construction); and (B) Is commenced within a 2-year period beginning on the date of the declaration.
10 ☐	Acquisition of scenic easements.
11 ☐	Determination of payback under 23 USC 156 for property previously acquired with Federal-aid participation.
12 ☐	Improvements to existing rest areas and truck weigh stations.
13 ☐	Ridesharing activities.
14 ☐	Bus and rail car rehabilitation.
15 ☐	Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons.
16 ☐	Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand.
17 ☐	The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities which themselves are within a CE.
18 ☐	Track and railbed maintenance and improvements when carried out within the existing right-of-way.

[1] On the CE form, distinguish between c9i or c9ii

[2] Include copy of the emergency declaration in the file

Categorical Exclusion Checklist (continued)

Dist/Co/Rte/PM: 10-SJ-San Joaquin	Fed. Aid No. (Local Project): BPMP-5929(223)	EA/Project No.:

19 ☐	Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site.
20 ☐	Promulgation of rules, regulations, and directives.
21 ☐	Deployment of electronics, photonics, communications, or information processing used singly or in combination, or as components of a fully integrated system, to improve the efficiency or safety of a surface transportation system or to enhance security or passenger convenience. Examples include, but are not limited to, traffic control and detector devices, lane management systems, electronic payment equipment, automatic vehicle locaters, automated passenger counters, computer-aided dispatching systems, radio communications systems, dynamic message signs, and security equipment including surveillance and detection cameras on roadways and in transit facilities and on buses.
22[3] ☐	"Projects, as defined in 23 U.S.C. 101, that would take place entirely within the existing operational right-of-way. Existing operational right-of-way refers to right-of-way that has been disturbed for an existing transportation facility or is maintained for a transportation purpose. This area includes the features associated with the physical footprint of the transportation facility (including the roadway, bridges, interchanges, culverts, drainage, fixed guideways[4], mitigation areas, etc.) and other areas maintained for transportation purposes such as clear zone, traffic control signage, landscaping, any rest areas with direct access to a controlled access highway, areas maintained for safety and security of a transportation facility, parking facilities with direct access to an existing transportation facility, transit power substations, transit venting structures, and transit maintenance facilities. Portions of the right-of-way that have not been disturbed or that are not maintained for transportation purposes are not in the existing operational right-of-way." Existing operational right-of-way also does not include areas outside those areas necessary for existing transportation facilities such as uneconomic remnants, excess right-of-way that is secured by a fence to prevent trespassing, *or that are acquired and held for a future transportation project*. A transportation facility must already exist at the time of the review of the proposed project being considered for the CE. This precludes the acquisition of right-of-way and the subsequent use of this CE to build within that right-of-way.
23[5] ☐ ☐	Federally-funded projects: Enter project cost $ and Federal funds $ (i) That receive less than $5,000,000 of Federal funds; or (ii) With a total estimated cost of not more than $30,000,000 and Federal funds comprising less than 15 percent of the total estimated project cost.
Activity Listed in Examples in 23 CFR 771.117(d)	
1 ☐	Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
2 ☐	Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
3 ☒	Bridge rehabilitation, reconstruction or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
4 ☐	Transportation corridor fringe parking facilities.
5 ☐	Construction of new truck weigh stations or rest areas.
6 ☐	Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
7 ☐	Approvals for changes in access control.
8 ☐	Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
9 ☐	Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
10 ☐	Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.

[3] On the CE form, identify in the project description that all work is within operation right-of-way.

[4] "Fixed Guideway" means a public transportation facility using and occupying a separate right-of-way for the exclusive use of public transportation such as rail, a fixed catenary system (light rail, trolley, etc.) passenger ferry system, or for a bus rapid transit system.

[5] On the CE form, distinguish between c23i or c23ii.

Categorical Exclusion Checklist (continued)

Dist/Co/Rte/PM: 10-SJ-San Joaquin	Fed. Aid No. (Local Project): BPMP-5929(223)	EA/Project No.:

11 ☐	Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
12 ☐	Acquisition of land for hardship or protective purposes. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed. (i) Hardship acquisition is early acquisition of property by the applicant at the property owner's request to alleviate particular hardship to the owner, in contrast to others, because of an inability to sell his property. This is justified when the property owner can document on the basis of health, safety or financial reasons that remaining in the property poses an undue hardship compared to others. (ii) Protective acquisition is done to prevent imminent development of a parcel which may be needed for a proposed transportation corridor or site. Documentation must clearly demonstrate that development of the land would preclude future transportation use and that such development is imminent. Advance acquisition is not permitted for the sole purpose of reducing the cost of property for a proposed project
Activity Listed in Appendix A of the CE Assignment MOU for State Assumption of Responsibilities for Categorical Exclusions	
1 ☐	Construction, modification, or repair of storm water treatment devices (e.g., detention basins, bioswales, media filters, infiltration basins), protection measures such as slope stabilization and other erosion control measures throughout California.
2 ☐	Replacement, modification, or repair of culverts or other drainage facilities.
3 ☐	Projects undertaken to assure the creation, maintenance, restoration, enhancement, or protection of habitat for fish, plants, or wildlife (e.g., revegetation of disturbed areas with native plant species; stream or river bank revegetation; construction of new, or maintenances of existing fish passage conveyances or structures; restoration or creation of wetlands).
4 ☐	Routine repair of facilities due to storm damage, including permanent repair, to return the facility to operational condition that meets current standards of design and public health and safety without expanding capacity (e.g., slide repairs, construction or repair of retaining walls).
5 ☐	Routine seismic retrofit of facilities to meet current seismic standards and public health and safety standards without expansion of capacity.
6 ☐	Air space leases that are subject to Subpart D, Part 710, title 23, Code of Federal Regulations.
7 ☐	Drilling of test bores/soil sampling to provide information for preliminary design and for environmental analyses and permitting purposes.

2. Project is a CE for a highway project under NEPA Assignment 23 USC 327. ☐ Yes ☒ No

(Use only if project does not qualify under CE Assignment 23 USC 326 [activities not included in three previous lists above].)

3. Independent Utility and Logical Termini

☒ The project complies with NEPA requirements related to connected actions and segmentation (i.e. the project must have independent utility, connect logical termini when applicable, be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made and not restrict further consideration of alternatives for other reasonably foreseeable transportation improvements). (FHWA Final Rule, "Background," *Federal Register* Vol. 79, No. 8, January 13, 2014.)

4. Categorical Exclusions Defined (23 CFR 771.117[a]).

FHWA regulation 23 CFR 771.117(a) defines categorical exclusions as actions which:

- do not induced significant impacts to planned growth or land use for the area;
- do not require the relocation of significant numbers of people;
- do not have a significant impact on any natural, cultural, recreational, historic or other resources;
- do not involve significant air, noise, or water quality impacts;
- do not have significant impacts on travel patterns; or
- do not otherwise, either individually or cumulatively, have any significant environmental impacts.

☒ Checking this box certifies that project meets the above definition for a Categorical Exclusion.

Dist/Co/Rte/PM:	10-SJ-San Joaquin	**Fed. Aid No. (Local Project):**	BPMP-5929(223)	**EA/Project No.:**	

5. Exceptions to Categorical Exclusions/Unusual Circumstances (23 CFR 771.117[b]).

FHWA regulation 23 CFR 771.117(b) provides that any action which normally would be classified as a CE but could involve *unusual circumstances* requires the Department to conduct appropriate environmental studies to determine if the CE classification is proper. Unusual circumstances include actions that involve:

- Significant environmental impacts;
- Substantial controversy on environmental grounds;
- Significant impact on properties protected by section 4(f) of the DOT Act or section 106 of the National Historic Preservation Act; or
- Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action.

All of the above unusual circumstances have been considered in conjunction with this project. (Please select one.)

☒ Checking this box certifies that **none of the above conditions apply** and that the project qualifies for a Categorical Exclusion.

☐ Checking this box certifies that unusual circumstances **are involved.** However, the appropriate studies/analysis have been completed, and it has been determined that the CE classification is still appropriate.

SECTION 2: Compliance with FHWA NEPA policy to complete all other applicable environmental requirements[6] prior to making the NEPA determination:

During the environmental review process for which this CE was prepared, all applicable environmental requirements were evaluated. Outcomes for the following requirements are identified below and fully documented in the project file.

Air Quality

☒ Air Quality Conformity Findings Checklist has been completed and project meets all applicable AQ requirements.

☐ For 23 USC 326 projects which require an air quality conformity determination (certain projects under 23 CFR 771.117(c)(22) and (23), list the date of the Caltrans conformity determination: _____

☐ For 23 USC 327 projects, list date of FHWA concurrence on conformity determination: _____

Cultural Resources

☒ Section 106 compliance is complete-select appropriate finding:

☐ Screened Undertaking ☒ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect/MOA

Noise

23 CFR 772

☒ Is this a Type 1 project? ☐ Yes; ☒ No (skip this section.)

☐ Future noise levels with project either approach or exceed NAC or result in a substantial increase

If yes, ☐ Abatement is reasonable and feasible ☐ Abatement is not reasonable or feasible

Waters, Wetlands

- Section 404 of the Clean Water Act

  Impacts to Waters of the US: ☒ Yes ☐ No

  If yes, approval anticipated:

  ☒ Nationwide Permit ☐ Individual Permit ☐ Regional General Permit ☐ Letter of Permission
- Wetland Protection (Executive Order #11990)

  ☒ No wetland impact

  ☐ Wetland Impact; Only Practicable Alternative Finding is included in a separate document in the project file
- Section 401 of the Clean Water Act

  ☐ Exemption ☒ Certification

Floodplains

- Floodplains (Executive Order #11988)

  ☐ No Floodplain Encroachment ☒ No Significant Encroachment ☐ Significant Encroachment

[6] Please consult the SER for a complete list of applicable laws, statutes, regulations, and executive orders that must be considered before completing the CE.

Categorical Exclusion Checklist (continued)

Dist/Co/Rte/PM:	10-SJ-San Joaquin	Fed. Aid No. (Local Project):	BPMP-5929(223)	EA/Project No.:	

Biology

☒ No Section 7 Needed

- Section 7 (Federal Endangered Species Act) Consultation Findings (Effect determination)
  - ☒ No Effect ☐ Not Likely to Adversely Affect with FWS/NOAA Concurrence Date: _____
  - ☐ Likely to Adversely Affect with Biological Opinion Date: _____
- Essential Fish Habitat (Magnuson-Stevens Act) Findings (Effect determination):
  - ☐ No Effect ☐ No Adverse Effect ☐ Adverse Effect and consultation with NOAA Fisheries

Section 4(f) Transportation Act (23 CFR 774)

- Section 4(f) regulation was considered as a part of the review for this project and a determination was made:
  - ☒ Section 4(f) does not apply
    (*Project file includes documentation that property is not a Section 4(f) property, that project does not use a Section 4(f) property, or that the project meets the criteria for the temporary occupancy exception.)*
  - ☐ Section 4(f) applies
    - ☐ De Minimis
    - ☐ Programmatic: Type _____ (List one of the five appropriate categories as defined in 23 CFR 774.3)
    - ☐ Individual: ☐ Legal Sufficiency Review complete ☐ HQ Coordinator Review Complete

Section 6(f)—Was the above property purchased with grant funds from the Land and Water Conservation Fund?

☐ No, Section 6(f) does not apply. No additional documentation required.

☐ Yes ☐ Documentation of approval from National Park Service Director (through California State Parks) has been received for the conversion/and replacement of 6(f) property.

Coastal Zone

Coastal Zone Management Act of 1972

☒ Not in Coastal Zone ☐ Qualifies for Exemptions ☐ Qualifies for Waiver ☐ Coastal Permit Required

☐ Consistent with Federal State and Local Coastal Plans ☐ Federal Consistency Determination

Relocation and Right of Way

☒ No Relocations

☐ Project involves _____ (#) relocations and will follow the provisions of the Uniform Relocation Act.

☐ No right of way acquisitions or easements.

☒ Project involves 0 (#) acquisitions and 2 (#) easements.

Hazardous Waste and Materials

- Are hazardous materials or contamination exceeding regulatory thresholds (as set by U.S. EPA, Cal EPA, County Environmental Health, etc) present? ☐ Yes ☒ No
- If yes, is the nature and extent of the hazardous materials or contamination fully known? ☐ Yes ☐ No

If no, briefly discuss the plan for securing information:

SECTION 3: Certification

Based on the information obtained during environmental review process and included in this checklist, the project is determined to be a Categorical Exclusion pursuant to the National Environmental Policy Act and is in compliance with all other applicable environmental laws, regulations, and Executive Orders.

Prepared by: Emilie Zelazo

Title: Associate Environmental Planner

Signature: Emilie Zelazo Date: 5-14-2014

Local Assistance NEPA Environmental Commitment Record

Project Name **Austin Road Bridge Scour Mitigation**

Federal Aid Number **BPMP-5929(223)**

Local Agency and Contact Name Mark Hopkins

Local Agency Phone and E-mail (209) 468-3085
mhopkins@sjgov.org

Project Description San Joaquin County Department of Public Works proposes to install scour countermeasures at Austin Road Bridge (#29C0259) over South Littlejohns Creek, southeast of Stockton in San Joaquin County. The scope of work includes channel excavation, application of rock-slope protection (RSP), staggered concrete baffles, bank excavation with vegetation removal, installation of a temporary access ramp, and temporary coffer dams. Work within the channel will occur during periods of low flow on South Littlejohns Creek. All work will occur within the County right-of-way and temporary construction easements will be required for access and staging; no work will occur on the bridge deck.

Approx. Start Date of Construction October 2014

Task and Brief Description	Page of ED or CE	Responsible Party	Timing/ Phase	Specific Action(s) Taken to Comply with Task	Local Agency Certification of Task Completion		Remarks
					Initial	Date	
Biological Commitments	Cliff Swallow nesting prevention, bat survey, invasive species						
If project activities are expected to occur during cliff swallow nesting season (from April to August), 5/8 inch bird netting will be installed along both sides of the existing bridge between the deck and the water surface. This netting will be monitored by a qualified biologist. Inactive, empty nests can be removed prior to start of construction	2	Local Agency Project Manager and Contractor	Prior to start of and during construction	Take measures to prevent cliff swallow nesting			
A focused survey for bats will be conducted by a qualified biologist prior to start of construction. If sensitive species are observed, appropriate exclusionary measures will be taken	2	Local Agency Project Manager	Prior to start of construction	Bat survey and installation of exclusionary measures as needed			
Measures in accordance with Executive order 13112 (Invasive Species) shall be followed to avoid the distribution of invasive plants during construction (see the May 2014 Natural Environment Study Chapeter 5)	2	Contractor	During construction	Measures will be taken to prevent the spread of invasive species			

Task and Brief Description	Page of ED or CE	Responsible Party	Timing/ Phase	Specific Action(s) Taken to Comply with Task	Local Agency Certification of Task Completion		Remarks
					Initial	Date	
Cultural Resource Commitments							
If cultural materials are discovered during construction, including human remains, do not disturb the resources and immediately stop all work within a 60-foot radius of the discovery and within any nearby area suspected to overlie the discovery. Immediately notify all appropriate parties including the Caltrans District 10 Local Assistance archaeologist, the Local Assistance Engineer (DLAE), and the County Coroner if human remains are found. Do not move cultural materials or take them from the job site. Do not resume work within the discovery area until authorized. Additional protocols for human remains are given in the State Health and Safety Code Section §7050.5 and §5097.98	2	Contractor	During construction	Stop work in immediate area if cultural materials are encountered during construction. Do not remove items and contact appropriate personnel			
Hazardous Waste Commitments	Preliminary Site Investigation, Worker Health and Safety Plan, Excess soil disposal						
Preparation of a Preliminary Site Investigation for heavy metals, pesticides, and herbicides is recommended prior to start of work. Information gathered from that report will be used to create a worker health and safety plan	2	Local Agency Project Manager	Before the start of construction	A Preliminary Stie Investigation will be done and the information from that report will be used to develop Worker Health & Safety Plan			
Excess soils will be re-used on site or disposed of at an appropriate facility	2	Contractor	During construction				
Visual/Scenic Commitments							
None							
Water Quality Commitments	Grading Plan, Spill Prevention Plan						
A Grading Plan to prevent storm water pollution will be prepared to identify specific actions and BMPs as detailed in the project Water Quality Assessment (May 2013)	2	Local Agency Project Manager	Before the start of construction	Development of a Grading Plan			
A Spill Prevention Plan will be prepared that identifies contingency measures, responsible parties, reporting requirements, and other actions as detailed in the Water Quality Assessment (May 2013)	2	Local Agency Project Manager	Before the start of construction	Development of a Spill Prevention Plan			
Air Quality Commitments							
None							

Task and Brief Description	Page of ED or CE	Responsible Party	Timing/ Phase	Specific Action(s) Taken to Comply with Task	Local Agency Certification of Task Completion		Remarks
					Initial	Date	
Noise Commitments							
None							
Other Commitments							
None							
Permits							
1602 Agreement from California Department of Fish and Game				Copy of permit provided to Caltrans on date			Agreement approved on date
404 permit from U.S. Army Corps of Engineers				Copy of permit provided to Caltrans on date			Permit approved on date
401 permit from the Regional Water Quality Control Board				Copy of permit provided to Caltrans on date			Permit approved on date

FILED
ASSESSOR RECORDER
COUNTY CLERK
KENNETH W. BLAKEMORE
2014 SEP -8 PM 2:21
SAN JOAQUIN COUNTY
DEPUTY

NOTICE OF DETERMINATION

TO: ☒ Office of Planning and Research
P.O. Box 3044
1400 Tenth Street (95814)
Sacramento, California 95812-3044

☒ Recorder/County Clerk
San Joaquin County
44 N. San Joaquin Street Suite 260,
Stockton, California 95202

FROM: San Joaquin County Department of Public Works (Lead Agency)
1810 E. Hazelton Avenue
Stockton, California 95205
Contact: Firoz Vohra, Senior Engineer
Phone: (209) 468-3035

SUBJECT: Filing of Notice of Determination in Compliance with Section 21152 of the Public Resources Code

Project Title: Austin Road Bridge Scour Mitigation Project

State Clearinghouse Number: 2014062027

Project Location: Austin Road Bridge (29C-259) across the North Fork of South Littlejohns Creek

Project Description: Please view attached project description.

This is to advise that the Lead Agency has approved the above-described project on August 26, 2014 and has made the following determinations regarding the above-described project.

1. The project ☐ will ☒ will not have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures ☐ were ☒ were not made a condition of the approval of this project.
4. A mitigation reporting or monitoring plan ☐ was ☒ was not adopted for this project.
5. A Statement of Overriding Considerations ☐ was, ☒ was not, adopted for this project.
6. Findings ☒ were ☐ were not made pursuant to the provisions of CEQA.

This is to certify that the Mitigated Negative Declaration is available to the general public at: San Joaquin County Department of Public Works, 1810 E. Hazelton Avenue, Stockton, California.

Firoz Vohra	9/2/14	Senior Engineer
Signature (Public Agency)	Date	Title

Date received for filing and posting at OPR: SEP 08 2014

Before the Board of Supervisors

County of San Joaquin, State of California

B-14- 486

MOTION: **Bestolarides/Villapudua/5**

BOARD ORDER ADOPTING AN INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR THE AUSTIN ROAD BRIDGE SCOUR MITIGATION PROJECT

THIS BOARD OF SUPERVISORS hereby adopts the Initial Study/Mitigation Negative Declaration for the Austin Road Bridge Scour Mitigation Project.

I HEREBY CERTIFY that the above order was passed and adopted on **8/26/2014** by the following vote of the Board of Supervisors, to wit:

AYES: **Villapudua, Bestolarides, Ruhstaller, Vogel, Elliott**

NOES: **None**

ABSENT: **None**

ABSTAIN: **None**

MIMI DUZENSKI
Clerk of the Board of Supervisors
County of San Joaquin,
State of California

SAN JOAQUIN COUNTY CALIFORNIA

mimi Duzenski

TE-14G019-ME3

Project Description
Austin Road Bridge Scour Mitigation Project

LOCATION:
Austin Road Bridge (29C-259) across the North Fork of South Littlejohns Creek, San Joaquin County

EXISTING SETTING

Austin Road Bridge is a two span structure with a continuous reinforced concrete (RC) flat slab on RC wall piers and RC wall abutments with "U" wing-walls. The bridge is 28 feet wide and 37 feet in length, with an average daily trip of 869 vehicles a day including heavy truck traffic.

BACKGROUND

Recent history has shown that the channel bed along South Littlejohns Creek has experienced minor erosion in the upper reaches of the creek, increasing the side slopes. Streambed erosion increased due to a constriction of the channel from the bridge abutments and piers. The purpose of the project is to create a smooth channel transition throughout the project area and to reduce channel degradation at abutments and piers that lead to bridge instability.

PROPOSED PROJECT DESCRIPTION

The County proposes to develop a uniform channel section supporting Austin Road Bridge with scour countermeasures to prevent channel degradation of South Littlejohns Creek. Construction will occur within previously disturbed areas of County right-of-way, while staging will require temporary easements on adjacent properties. The proposed project will include clearing and grubbing along the creek banks, installation of a temporary access ramp and coffer dams, excavation of the existing earthen channel bottom and banks, and placement of rock slope protection with staggered concrete baffles.

ALTERNATIVES CONSIDERED

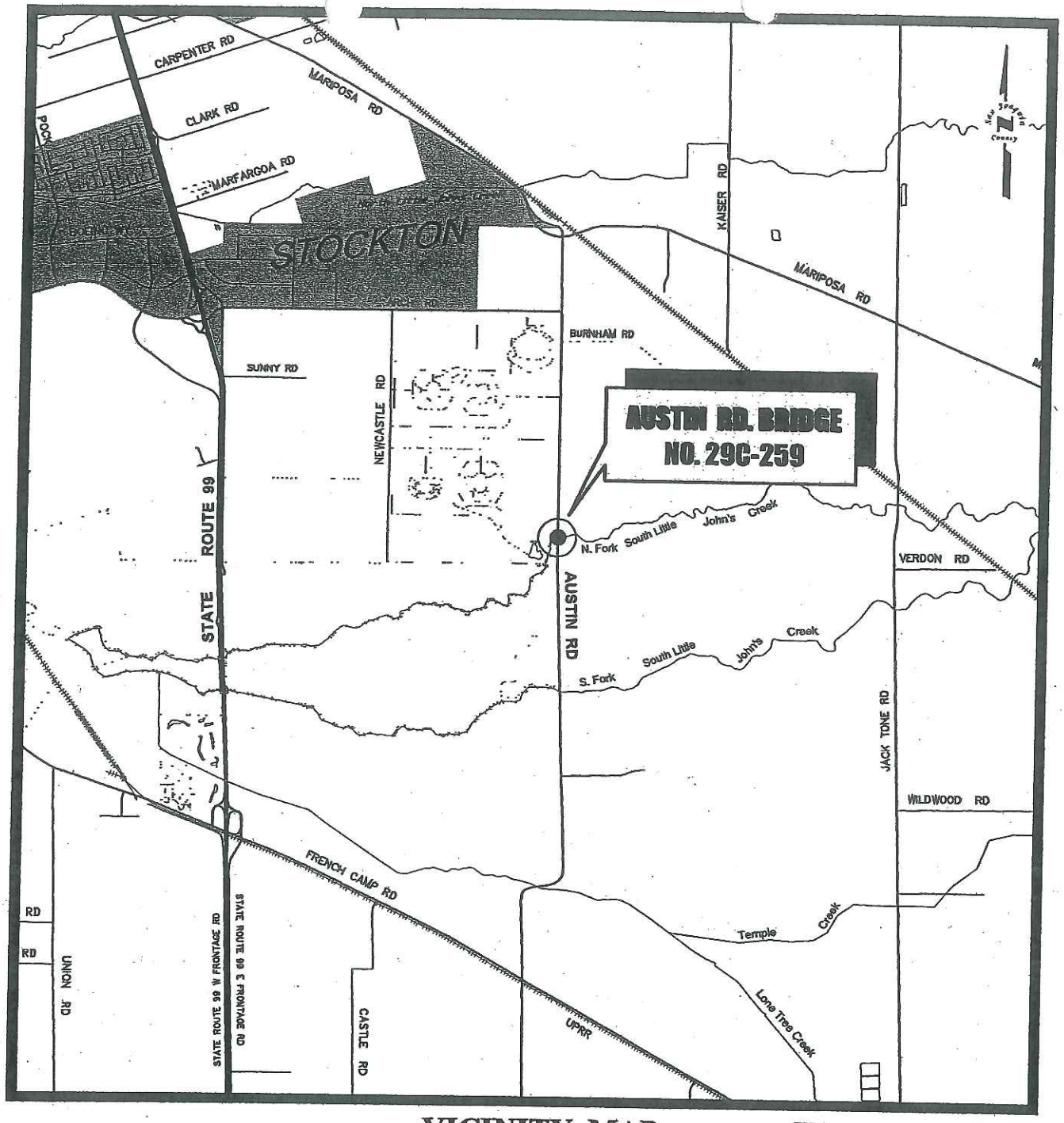
The only alternative considered was "No Build".

NATURE

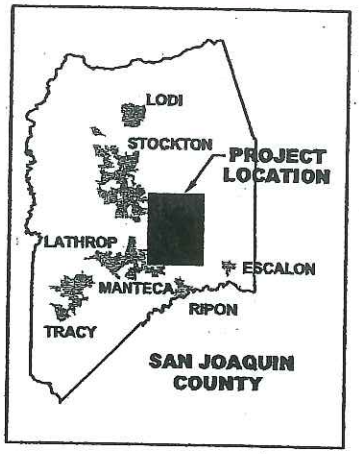
The 0.98-acre Biological Study Area includes the project footprint, which includes 0.12 acre of open water habitat within Littlejohns Creek, 0.46 acre of ruderal habitat along the banks of South Littlejohns Creek, 0.38 acre of developed land along Austin Road Bridge and the County right-of-way, and 0.02 acre of vineyard.

BENEFICIARIES

The purpose of the project is to prevent bridge failure and provide a uniform channel along Littlejohns Creek for residents and visitors.



— VICINITY MAP —



AUSTIN ROAD BRIDGE NO. 29C-259 over N. FORK S. LITTLE JOHNS CREEK

NO SCALE
DATE: May 3, 2010
SAN JOAQUIN COUNTY, Dept. of Public Works

\\sjpwgov.org\shares\Engineering\EBridge\BRIDGE\29C-259 AUSTIN ROAD\Drawings\259 Vicinity Map.dwg