

**Del Puerto Creek Sediment Removal Project
Initial Study/Final Mitigated Negative Declaration**



**California Department of Water Resources
1416 Ninth Street
Sacramento, CA 95814**

March 2015

Initial Study
Del Puerto Creek Sediment Removal Project

1. Project Title	Del Puerto Creek Sediment Removal Project
2. Lead Agency Name and Address	California Department of Water Resources 1416 Ninth Street Sacramento, California 95814
3. Contact Person and Phone Number	Anthony Chu Program Manager II (916) 653-9978 Anthony.Chu@water.ca.gov
4. Project Location	The project is located on the western side of the California Aqueduct in Stanislaus County in the Patterson 7.5 minute USGS Quadrangle.
5. Project Sponsor's Name	California Department of Water Resources
6. General Plan Designation	State-owned Water Conveyance System, Agricultural
7. Zoning	Agricultural
8. Description of Project	The proposed Del Puerto Sediment Removal Project includes 1) the removal of silt/cobble from the creek within 200 feet of the underchute structure, 2) vegetation removal and placement of rip-rap for bank stabilization, 3) rockered drain repair, and 4) access road improvements
9. Surrounding Land Uses and Setting	The surrounding land uses include agriculture, open space, the California Aqueduct, and Interstate 5.
10. Other Public Agencies Whose Approval is Required	U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, CA Department of Fish and Wildlife, Central Valley Regional Water Quality Control Board, State Historic Preservation Officer

MITIGATED NEGATIVE DECLARATION

PROJECT: Del Puerto Creek Sediment Removal Project

LEAD AGENCY: California Department of Water Resources

PROJECT LOCATION: The project is located on the western side of the California Aqueduct (Aqueduct) near Patterson in Stanislaus County, California in the Patterson 7.5 minute US Geological Survey (USGS) Quadrangle (longitude 121o12"16.828"W, latitude 37o29'27.606"N).

PROJECT DESCRIPTION: DWR is proposing to perform maintenance activities at Del Puerto Creek where it crosses under the Aqueduct. Routine maintenance at this site has been inconsistent in the last 10+ years, leading to silt, cobble, and debris building up within the upstream portion of the channel. The proposed project includes actions to restore channel flow capacity and forestall potential damages of the adjacent Aqueduct. The actions include improvements to existing access roads; removal of sediment and debris from the upstream portion of the creek within 200 feet of a concrete underchute structure; bank stabilization utilizing rip-rap; repairs to an existing rock drainage; and spoils disposal.

DETERMINATION: An initial study (IS) was prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the analysis conducted in the IS, it has been determined that implementing the proposed project would not have any significant adverse effects on the environment after adoption and implementation of mitigation measures.

MITIGATION MEASURES: The following mitigation measures will be implemented as part of the project to avoid, minimize, rectify, reduce or eliminate, or compensate for potentially significant environmental impacts. Implementation of these mitigation measures would reduce the potentially significant environmental impacts of the proposed project to less-than-significant levels:

Mitigation Measure AQ-1: Reduce Construction-Related Emissions from Off-Road Equipment and Heavy-Duty Vehicles (Regulation VIII)

To minimize potential impacts to air quality within and around the project area, the following general measures will be implemented:

- a) All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized to reduce dust emissions. Dust reducing techniques include using water, chemical stabilizer/suppressant, covering with a tarp or other suitable cover or vegetative ground cover.
- b) All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- c) All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.

- d) When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- e) All operations shall limit or expeditiously remove the accumulation of mud or dirt "trackout" from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)
- f) Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
- g) Limit traffic speeds on unpaved roads to 15 mph

Mitigation Measure BIO-1: General conservation measures

To minimize potential impacts to plants and wildlife that may occur within the project area, the following general measures will be implemented:

- a) A qualified biologist will conduct pre-construction surveys no more than two weeks prior of the start of construction for any special status plants or wildlife that have the potential to occur within the project area.
- b) A qualified biologist shall conduct a training session for all construction personnel prior to the start of work. At a minimum, the training shall include a description and discussion of the importance of avoiding impacts to rare plants, western spadefoot, burrowing owl, California Horned Lark, San Joaquin kit fox, and San Joaquin whipsnake, the general measures that are being implemented to conserve these species as they relate to the project and project area, and procedures to follow should sensitive plants or wildlife be encountered during work.
- c) Any observations of federally or state-listed species will be reported to the USFWS and the CDFW within three (3) working days of the observation.
- d) All federally and state-listed species observed will be allowed to leave the project area on their own. The on-site biologist will determine whether activities must cease in order to ensure their protection.
- e) Project activities shall be performed during daylight hours.
- f) All trash shall be properly contained, removed from the work site, and disposed of properly to prevent attracting predators.
- g) Work shall be conducted during the dry season (generally between August 1 and October 31) but may be initiated sooner if no-flow conditions exist.
- h) All fueling and maintenance of vehicles or other equipment shall occur on established access roads and at least 50 feet away from the creek.
- i) Motorized equipment will be kept clean and in good working condition and will not be left idling while not in use.

- j) Absorbent materials will be available on site. Any accidental leaks or spills will be immediately cleaned up, and the equipment will not be able to return to the project area until it has been repaired sufficiently to prevent further leaks or spills.

Mitigation Measure BIO-2: Minimize impacts to special-status plants.

To reduce potential impacts to diamond-petaled poppy and/or round-leaved filaree that may be present within the project area to less-than-significant, the following measures will be implemented:

- a) A botanist will conduct one spring (March or April) and one summer (July through September) pre-construction survey for special status plants with potential to occur within the project area. If any are identified, they will be flagged and avoided if feasible.
- b) If special status plants are identified within the project area and cannot be avoided, the appropriate regulatory agencies will be consulted and an attempt will be made to transplant the individuals or collect and disperse seed.

Mitigation Measure BIO-3: Minimize impacts to migrating, breeding, and/or resident amphibians.

To further reduce potential impacts to western spadefoot that may utilize the project area for breeding, migration, and/or aestivation to less-than-significant, the following measures will be implemented:

- a) Work will be conducted when the creek is dry or under low-flow conditions.
- b) Work will not take place within 24 hours after rain events when amphibians may be moving overland.

Mitigation Measure BIO-4: Avoid and minimize impacts to special-status and migratory birds.

To further reduce potential impacts to burrowing owls, Swainson's Hawk, California Horned Lark, and/or migratory birds that may be utilize the project area for breeding and/or foraging to less-than-significant, the following measures will be implemented:

- a) If work is to take place within the general bird nesting season (April 1 through August 31), a qualified biologist will conduct preconstruction surveys and identify active migratory bird nests within 250 feet of the proposed project area no less than 14 days and no more than 30 days prior to start of construction. If no nests are found, no further mitigation is required. Construction activity that occurs between September 1 and March 31, outside the nesting season, shall not require preconstruction nesting bird surveys.
- b) If an active nest is located within 250 feet of construction, an appropriate non-disturbance buffer zone shall be established around the nest in coordination with CDFW guidelines. Buffer zones shall be determined in consultation with

CDFW and will depend on species of bird, site conditions, and type of work proposed in proximity to the nest. No new project activity shall occur within the buffer zone until the young have fledged, until the nest is no longer active, or until a qualified biologist has determined in consultation with CDFW that reducing the buffer would not result in nest abandonment. Monitoring of the nest by a qualified biologist during construction activities shall be required to ensure that the nest is not jeopardized by construction activities.

- c) Preconstruction surveys will be conducted for Burrowing Owls by a qualified biologist 30 days prior to construction. If an active burrow is found during the breeding season (February 1 through August 31), clear, visible markers will be placed on the roadways to clearly demarcate the burrow location so vehicles traveling either direction on the road and workers at the project site will avoid disturbing the area. Where feasible, buffer zones will be implemented to minimize disturbance impacts while construction activities are occurring, following recommendations in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012).
- d) If Burrowing Owls are present in the project area, active burrows will be monitored by a qualified biologist throughout the construction phase to determine the effectiveness of buffers, visual screens, or other measures, and to determine if the vehicle traffic is jeopardizing an active nest. DWR shall consult with CDFW for assistance in developing site-specific solutions, as needed, and to determine if the owls are sensitized to human disturbance and the survey effort can be reduced.
- e) If work is to take place during Swainson's Hawk nesting season (April 1 to August 31), a qualified biologist will conduct preconstruction surveys for Swainson's Hawk nests within ½ mile of the project area within 5 days prior to construction. If active nests are found, DWR shall consult CDFW for assistance in developing non-disturbance buffers and monitoring requirements based on the individual birds' sensitivity to human disturbance prior to beginning work.

Mitigation Measure BIO-5: Avoid impacts to special-status mammals.

To reduce potential impacts to American badger and San Joaquin kit fox to less-than-significant levels, the following measures outlined in the USFWS' *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011) will be implemented:

- a) A qualified biologist shall conduct a pre-construction survey on DWR property no less than 14 days and no more than 30 days prior to work commencing to determine if any potential American badger or San Joaquin kit fox dens are located within 200 feet of the disturbance areas.
- b) If a potential den is discovered within 200 feet of the project boundary, a 50-foot exclusion zone shall be established around this den using stakes and flagging. No disturbance shall be allowed within this exclusion zone.

- c) If a potential den is discovered within the footprint of ground disturbing activities, the den shall be monitored for no less than three consecutive days with a tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den may be destroyed by careful excavation. Excavation shall cease if a kit fox is discovered during den destruction.
- d) If a natal/pupping den is discovered within 200 feet of the project boundary, the USFWS shall be immediately notified and the den shall not be disturbed or destroyed without prior authorization. Necessary take authorization/permits may be required prior to commencing construction activities.
- e) No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of potential dens.
- f) If at any time during project activities a trapped or injured kit fox is discovered, project activities shall cease and the onsite biologist shall contact the USFWS and the CDFW.

Mitigation Measure BIO-6: Minimize impacts to potentially jurisdictional waters of the United States and waters of the State.

To reduce potential impacts to potentially jurisdictional waters of the United States and waters of the State within the project area, the following measures will be implemented:

- a) If water is present in the channel at the time of construction, a temporary coffer dam and/or sediment barrier (silt fence) will be installed prior to construction activities to prevent sediment from flowing downstream.
- b) Locate all staging areas, parking areas, equipment, and storage areas for fuel, lubricants, and solvents in areas away from waters of the United States and waters of the state.
- c) Prior to dredging or grading within Del Puerto Creek, a jurisdictional delineation of waters of the U.S. shall be prepared and submitted to the appropriate resource agencies for review and approval. Such agencies may include but are not limited to the United States Army Corps of Engineers, the California Department of Fish and Wildlife, and the Central Valley Regional Water Quality Control Board. Necessary regulatory permits shall be obtained and impacts to wetlands shall be mitigated through purchasing credits at an agency-approved mitigation bank in the region at no less than a 1:1 ratio.

Mitigation Measure CUL-1: Halt Ground-Disturbing Construction Activities if Cultural Materials Are Discovered

If a discovery of cultural materials (e.g., unusual amounts of shell, animal bone, flaked stone, bottle glass, ceramics, structure/building remains, etc.) is encountered during project construction, ground disturbances in the immediate vicinity of the find shall be halted immediately and a qualified professional

archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per the California Register of Historical Resources (CRHR) and identify appropriate management steps needed to protect and secure identified resources.

Mitigation Measure CUL-2: Halt Construction Activities if Any Human Remains Are Discovered

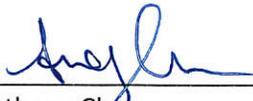
The procedures for the treatment of discovered human remains are contained in Sections 7050.5 of the California Health and Safety Code and Section 5097.98 of the California Public Resources Code.

In accordance with the California Health and Safety Code, if human remains are uncovered during ground disturbing activities, such activities that may affect the remains shall be halted and DWR or its designated representative shall be notified. DWR shall immediately notify the county coroner and a qualified professional archaeologist. If the coroner determines that the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code, Section 7050.5[c]).

DWR's responsibilities for acting upon notification of a discovery of Native American human remains are identified in detail in Section 5097.98 of the California Public Resources Code. DWR or its appointed representative and the professional archaeologist shall consult with a Most Likely Descendant (MLD) determined by the NAHC regarding the respectful disposition of the remains.

Mitigation Measure HM-1: All personnel involved in use of hazardous materials will be trained in emergency response and spill control. Diesel fuel and oil will be used, stored and disposed of in accordance with standard protocols for the handling of hazardous materials.

Mitigation Measure HM-2: Soils contaminated by any hazardous material spills during construction would be excavated, removed or mopped up from the site and disposed of at an appropriate regional landfill.



Anthony Chu
California Department of Water Resources
Division of Operations and Maintenance

3/4/2015

Date

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1 INTRODUCTION AND PROJECT DESCRIPTION

1.1 BACKGROUND

The California Aqueduct (Aqueduct), the primary delivery system of the State Water Project (SWP), was originally built by the California Department of Water Resources (DWR) in the 1960's. When the Aqueduct was built it traversed numerous natural waterways along its length. To accommodate and convey the flow of these natural drainages past the Aqueduct DWR engineers designed numerous underchutes and overchutes to maintain a downstream connection for these drainages. One of these waterways, Del Puerto Creek, historically drains into the San Joaquin River, and currently passes under the Aqueduct through a concrete underchute structure. The concrete underchute structure for Del Puerto Creek consists of a 16 feet in diameter culvert, wing walls, a head wall, an end wall, and concrete aprons on the inlet and outlet. The inlet apron extends approximately 53 feet from the opening of the culvert, upstream into the creek. Del Puerto Creek has deposited sediment and gravel on top of the inlet apron via natural fluvial processes, and in some areas the sediment has accumulated as much as 3 to 4 feet, thereby reducing channel capacity and the ability of the underchute to convey natural streamflow past the Aqueduct.

1.1.1 PROJECT LOCATION

The proposed project is located between Interstate 5 and the Governor Edmond G. Brown California Aqueduct, approximately 4 miles northwest of the city of Patterson, Stanislaus County, California. The proposed project is within Section 21, Township 5 South, Range 7 East of the Mount Diablo Meridian, in the "Patterson, CA" 7.5 minute U.S. Geological Survey (USGS) topographic quadrangle (quad) at Latitude 37.4910, Longitude -121.2047. Elevation on the site ranges from approximately 241 feet above mean sea level (msl) along the top of the levee to approximately 191 feet above msl at the low flow channel of the stream (Figure 1).

1.1.2 PURPOSE AND NEED

Routine maintenance at the Del Puerto underchute has been inconsistent in the last 10+ years, leading to silt, cobble, and debris building up within the upstream portion of the channel, well above the height of the concrete underchute structure (Figure 2). Water ponding against the Aqueduct combined with sediment build up and erosion of the creek embankments can lead to increased pressure on the Aqueduct levee, threatening its integrity.

To restore channel flow capacity and forestall potential damages to the levee of the adjacent Aqueduct, DWR proposes to remove the silt/cobble from approximately 200 linear feet of the upstream portion of the creek and return the drainage to its intended condition.

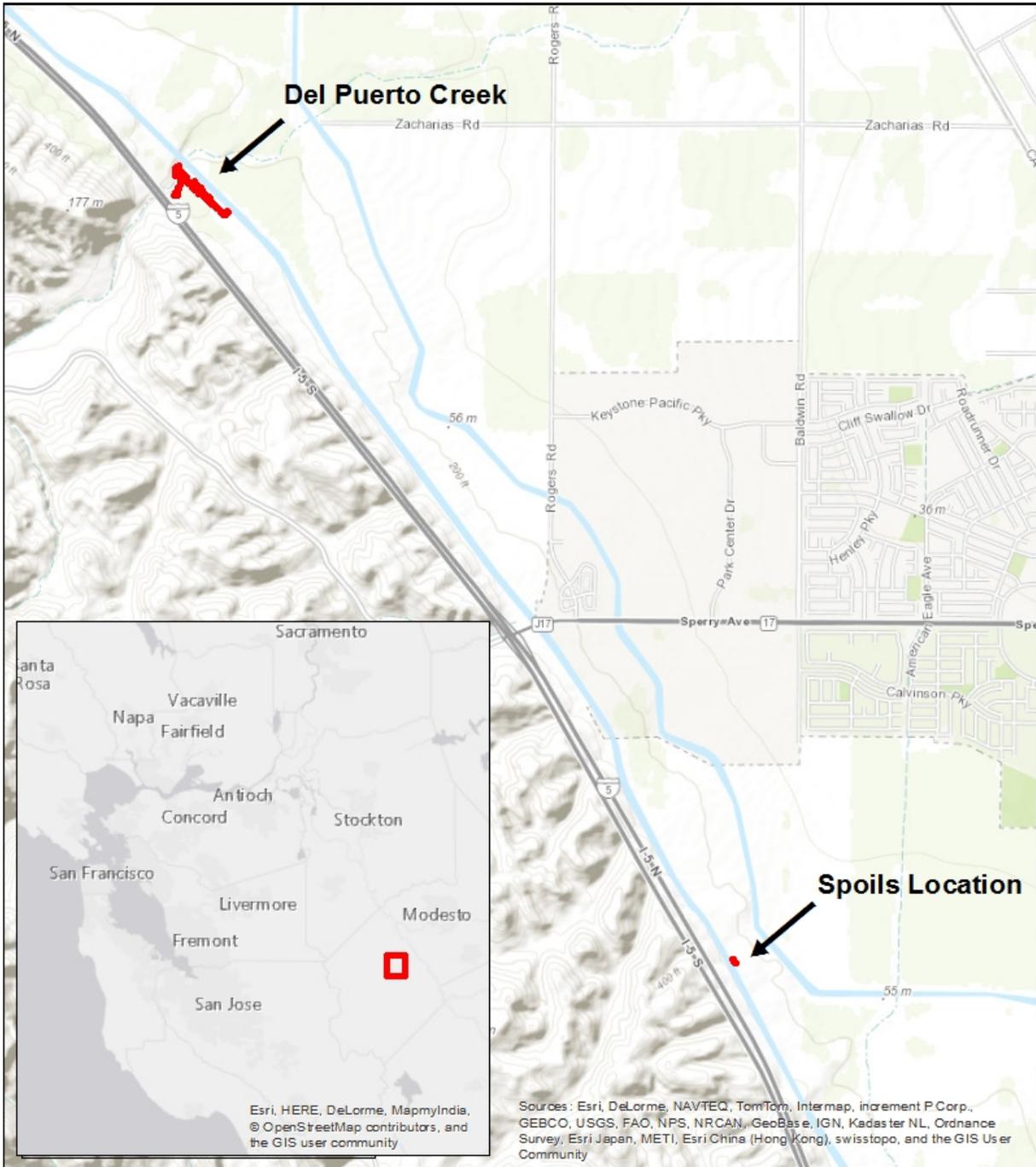
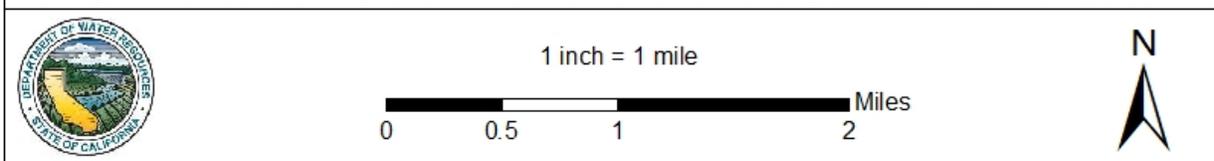


Figure 1: Del Puerto Creek Sediment Removal Project Overview



1.2 PROJECT DESCRIPTION

DWR proposes to remove the silt/cobble from the upstream portion of Del Puerto Creek, returning the drainage to its intended condition, at or slightly below the level of the concrete apron at the inlet of the underchute (Figure 2). Rip-rap will be installed along both sides of the creek embankments to stabilize the banks and prevent erosion close to the Aqueduct levee. A rocked drainage ditch currently channels water runoff from the Aqueduct levee directly to the creek bed. A culvert will be installed where the drainage ditch runs into the creek to prevent future erosion of the embankment, and access roads to the site will be re-established.

Water is present in this drainage during the late fall/early winter until spring. This creek historically flows into the San Joaquin River approximately 6 miles downstream. DWR would remove the sediment and debris when the channel is dry, generally between August 1 and October 31. If water is present in the channel at this time, a water diversion structure will be utilized for the duration of in-channel work.



Figure 2. Photograph of accumulated debris at the Del Puerto Creek underchute of the California Aqueduct.

The entire project footprint encompasses approximately 1.807 acres and includes access road improvements, sediment removal, bank stabilization, repairs to the existing rocked drainage, and spoils disposal (Figure 3; Table 1). Each of these project components are discussed in further detail below.



Figure 3: Del Puerto Creek Sediment Removal Footprint

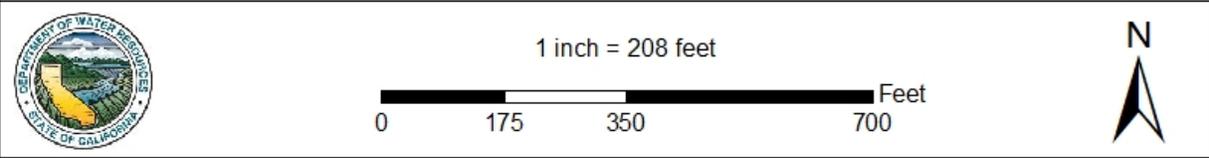


Table 1. Summary table of project features and footprint, in acres.

Feature	Maximum area (acres)	Description
Access road improvements	0.938	Grade and place aggregate base (A/B)
Access ramp improvement	0.132	Repair erosion on the access ramp, grade and place A/B where necessary
Sediment removal from creek bed	0.207	Approximately 500 cubic yards of sediment removed along 200 feet of channel upstream of the underchute structure
Sediment removal from underchute structure	0.053	Approximately 100 cubic yards of sediment removed from the inlet apron of the underchute
Bank stabilization	0.027 (south side) < 0.037 (north side) Total rip-rap placed below OHWM: 0.0138	Remove vegetation from creek banks, place rip-rap along south bank from underchute structure to access road, and patch gaps in existing rip-rap on north bank
Rocked drain repair	0.033	Remove vegetation, repair erosion using material from the creek bed and rip-rap if necessary, install 12"-24" culvert, up to 30 feet in length
Spoils site	0.067	Existing spoil site
Unimproved staging area	0.313	Utilize unimproved area for staging equipment, if necessary
Total affected area	1. 807	
Total affected area outside of waterway	1.547	

Access Road and Ramp Improvement

An established dirt road extends from the western side of the Aqueduct, crosses private property, and leads to a formerly utilized ingress/egress ramp to the creek bed. A turnaround spot on the adjacent private property will be utilized as well. This road will be re-established for this project by grading and placing aggregate base (A/B) on the road surface along its entire length (0.938 acres).

Erosion along the existing access ramp must be repaired before the ramp can be re-established. The eroded areas of the ramp in the uplands will be filled with material removed from the creek bed and possibly a small amount of rip-rap. Material from the creek bed will then be pushed up toward the bank using a dozer and leveled out to form a connection with the access ramp. The access ramp will extend 20 feet out into the creek bed. The ramp (0.132 acres total) will then be graded and A/B placed as necessary above the ordinary high water mark (OHWM). The portion of the ramp that extends into the creek will be removed once the project is complete and the creek embankment will be restored to its original condition. This portion of the ramp will be removed using an excavator and 10-ton dump trucks.

Sediment Removal

DWR proposes to remove sediment within 200 feet upstream of the cement underchute's inlet apron, and across the width of the channel which is approximately 40 feet. Sediment will also be removed from the structure's inlet apron. In some areas of the creek the sediment has accumulated as much as 3 to 4 feet in depth. It is estimated that 500 cubic yards (cu yds) of sediment will be removed from the bed of the channel and another 100 cu yds from the inlet apron. Minimal herbaceous vegetation scattered sporadically around the creek bed is present in the summer, and will be removed with the sediment. Sediment will be removed from the channel using a front end loader, back hoe, excavator, dozer, and skid-steers, and hauled to the designated spoil area in 10-ton dump trucks. The affected area within the channel itself is approximately 0.207 acres.

Bank Stabilization

In order to prevent erosion of the creek banks near the underchute structure inlet, 6 to 8 inch rip-rap (rocks 6 to 8 inches in diameter) will be used to stabilize the south and north banks of Del Puerto Creek within 200 feet of the concrete structure. The rip-rap will be placed to a width of approximately 2.5 feet. An estimated 0.029 acres of vegetation (California sagebrush alliance) along sections of the south and north banks of the channel will be removed to accommodate the addition of rip-rap. Up to 200 linear feet of rip-rap will be placed on the south bank, and will extend 6 to 10 feet up the bank for a maximum of 2,000 square feet of rip-rap. The north bank of Del Puerto Creek has existing rip-rap in place. DWR proposes to add rip-rap as needed to patch gaps in the existing bank stabilization within 200 feet of the concrete structure, which will total much less than the entire 2,000 square foot area present. The OHWM is estimated to be 1.5 feet above the base of the underchute inlet apron, where the creek travels under the Aqueduct. This estimation is based upon the following: water marks/stains,

silt deposits, and organic litter accumulation. An estimated 55.56 cu yds of rip-rap, measuring 600 square feet, will be placed below the OHWM.

Rocked Drainage Repair

A rocked drainage that runs parallel to the established dirt road on the south side of the creek allows for rain water to flow into the creek while preventing further erosion off of the levee and roadway(s). Erosion and silt accumulation within this drain needs to be repaired. The maximum area proposed for repair is approximately 3 feet by 473 feet (0.033 acres). This upland area is within 40 feet of the banks of the creek. Repair of the entire length is not anticipated. Vegetation along the rocked drainage will be removed to allow proper drainage and prevent pooling of water. Vegetation to be removed consists of mustard and other ruderal species. Where existing cobble has receded, the rocked drainage will be filled to surface elevation with material removed from the creek bed. In areas where silt has accumulated, the silt will be removed and material from the creek bed added to fill the drainage. The exit of the rocked drainage to the creek has eroded in a 6 by 4 foot area (Figure 4); A 12 to 24" culvert will be installed within the erosion area, and material pulled from the creek and rip-rap will be placed on top to prevent further erosion at this location.



Figure 4. Photograph of eroded exit of rocked drain that requires repair.

Spoils Site

All material removed will be transported using 10-ton dump trucks, which can haul approximately 10 cu yds of material, and deposited at an established spoils site. The spoil site is located along the eastern side of the Aqueduct between milepost 41.0 and 41.5 (Figure 1). This location encompasses 0.067 acres, and spans approximately 120 linear feet. The spoil site will be accessed directly from the roadway on the eastern side of the Aqueduct (Figure 5).

Potential Staging Area

An unimproved staging area will be utilized within the project area, adjacent to the access road on DWR property (see Figure 3). Heavy machinery will be stored here when not in use. The staging area consists primarily of ruderal grasses, and will be utilized as is. Staging area may be mowed prior to use to reduce risk of fire.

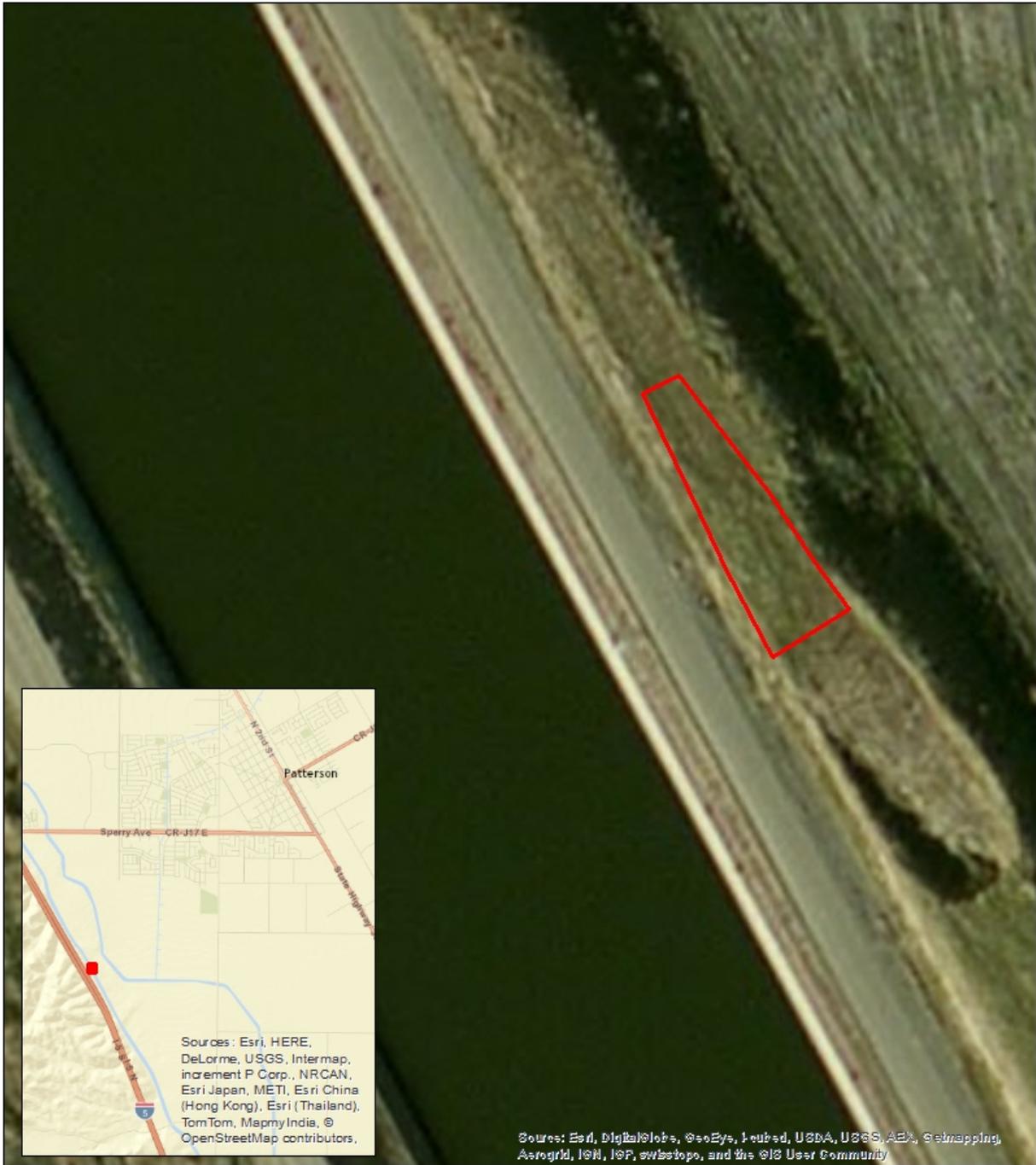
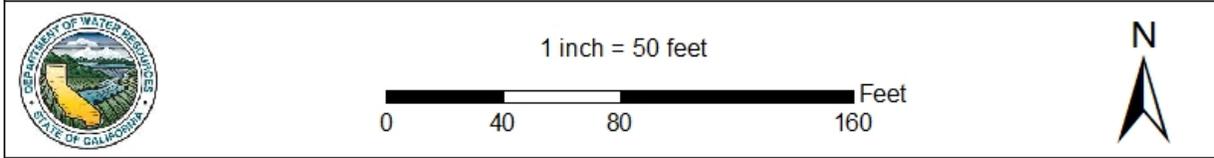


Figure 5: Del Puerto Creek Sediment Removal Spoils Location



1.3 CONSTRUCTION EQUIPMENT AND TIMING OF WORK

Equipment to be utilized will include a front end loader, a back hoe, excavator, dozer, grader, two skid-steers, low boy truck/trailer, water truck, 10-ton dump trucks, and hand tools. Equipment and materials will be stored on site, along the re-established access road and staging area. Upon completion of the project, access roadways will be re-dressed where needed and all equipment removed from the area.

The proposed work will take place between the hours of 7:00am and 5:00pm, and is expected to take approximately 8 weeks to complete in the early fall.

1.4 FUTURE MAINTENANCE

Although routine maintenance of this channel has been deferred in the past, it is expected that with the acquisition of environmental permits, maintenance will occur on a biennial basis to maintain channel flow capacity and to protect the Aqueduct levee from potential erosion. Maintenance activities will include access road and ramp improvements, sediment removal, bank stabilization maintenance, and rocked drainage ditch maintenance.

1.5 REGULATORY REQUIREMENTS, PERMITS AND APPROVALS

DWR has the responsibility to ensure that all requirements of CEQA and other applicable regulations are met. Permits necessary to carry out project activities include:

- US Army Corps of Engineers (ACOE) Nationwide Permit 3 – Routine Maintenance Activities pursuant to Section 404 of the Federal Clean Water Act.
- US Fish and Wildlife Service (USFWS) – Endangered Species Act (ESA) Section 7 Consultation
- California Department of Fish and Wildlife Region 4 (CDFW) - Streambed Alteration Agreement pursuant to Section 1602 of the California Department of Fish and Game Code.
- Regional Water Quality Control Board (RWQCB) Region 5 - Water Quality Certification pursuant to Section 401 of the Federal Clean Water Act.
- RWQCB – Waste Discharge Requirement (WDR) pursuant to Section 402 of the Federal Clean Water Act
- RWQCB - National Pollutant Discharge Elimination Systems (NPDES) Construction General Permit Low Erosivity Waiver
- DWR Real Estate – Temporary Entry Permit

2 ENVIRONMENTAL CHECKLIST

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

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> 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 to 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 an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.



 Signature

3/4/2015

 Date

Anthony Chu

 Printed Name

NA

 For

2.1 AESTHETICS

ENVIRONMENTAL 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.1.1 ENVIRONMENTAL SETTING

The project site is located within view of the West Side Freeway, a section of Interstate 5 (I-5) through San Joaquin and Stanislaus counties that is a designated scenic highway. The views of the Aqueduct are cited as a reason for this scenic designation, as the delivery of water to this region via the Aqueduct and the Delta-Mendota Canal transformed an arid landscape into the present agricultural landscape (California Department of Transportation 2014). The existing visual character of Del Puerto Creek is similar to other drainages that cross over or under the Aqueduct. Del Puerto Creek in the vicinity of the proposed project and the scenic highway contains no trees, is a seasonally dry creek with a cobble bottom, and flows through an underchute of the Aqueduct with a wide concrete apron. The habitat adjacent to the creek consists largely of annual grasses and sparse shrubs in a low area between the raised I-5 and the Aqueduct levee. A recent grass fire within the project vicinity has degraded the existing visual character of the surrounding area. The surrounding landscape consists of rolling hills to the west and orchard crops to the north, south, and east.

2.1.2 DISCUSSION

a) Would the project have a substantial adverse effect on a scenic vista?

Less-than-significant impact. The project is located within view of the West Side Freeway, a section of I-5 that is designated a scenic highway. However, views of the surrounding agricultural landscape from the highway will not be eliminated or blocked due to this project. The project has a relatively short construction period and will utilize minimal equipment. After construction activities are completed, the construction equipment will be removed. The

removal of accumulated sediment and cobble from the creek bed, improvements to existing access road, and addition of rip rap on the creek embankment would not alter the overall view of the landscape from the highway as the project is a maintenance action to preserve the existing infrastructure. Thus, impacts to the scenic highway would be temporary and would be less than significant.

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

Less-than-significant impact. As noted in topic (a) above, the project would not alter the overall view of the landscape from the highway or substantially damage scenic resources as the project is a maintenance action to preserve the existing infrastructure. Therefore, this impact would be less than significant.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less-than-significant impact. The proposed project includes the removal of accumulated sediment and cobble from the creek bed, improvements to existing access roads, and addition of rip rap on the creek embankment in order to allow regular flow and prevent erosion around an underchute of the Aqueduct. Rip-rap already exists on the north embankment, and will be added to the south embankment to prevent erosion. While California sagebrush will be removed from the embankments, it will not substantially alter the visual character of the site as these are low-growing shrubs and there is a significant amount of this vegetative community in juxtaposition to the work areas. A recent grass fire within the project vicinity has degraded the existing visual character of the surrounding area. Therefore, this impact would be less than significant.

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

No impact. Existing sources of lighting in the vicinity of the project is limited to vehicle headlights. The proposed project will not create additional lighting at Del Puerto Creek aside from temporary construction equipment. The site is surrounded by the Aqueduct, I-5, agricultural land, and open space, and no residences or other uses that would be affected by the lighting. Additionally, construction activities will take place during the daylight hours when no supplemental lighting is needed. Accordingly, no impacts would result from an increase in light or glare from the proposed project.

2.2 AGRICULTURAL & FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agricultural and Forest Resources.				
<p>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, as updated) prepared by the California Department 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.2.1 ENVIRONMENTAL SETTING

The project site is surrounded by ruderal undeveloped grasslands, the California Aqueduct, I-5, and agricultural land. Land within and immediately surrounding the project site is mapped as Prime Farmland and Farmland of Statewide Importance by the California Department of Conservation (CDC 2012). The proposed project would be located on DWR property associated with the Aqueduct, and utilizes an existing access road on an adjacent private property mapped as Prime Farmland.

2.2.2 DISCUSSION

- a) Would the project 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?**

Less-than-significant impact. The proposed project would be located within DWR property associated with the Aqueduct, and utilizes an existing access road crossing an adjacent private parcel. The private parcel is designated Prime Farmland; however no conversion of farmland would occur as a result of the project. As such, impacts resulting from the conversion of farmland would be less than significant.

- b) Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?**

No impact. The proposed project would be located within DWR property associated with the Aqueduct, and utilizes an existing access road crossing an adjacent private parcel. The private parcels are zoned for agricultural use; however the proposed project would not change any existing land uses or land use designations on the agricultural properties adjacent to the project site. The land surrounding the project site is not enrolled land under the Williamson Act. As such, there would be no impact to existing zoning for agricultural use or a Williamson Act contract.

- c) Would the project 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))?**

No impact. No forest land or timberland exists on, or adjacent to the project site. As such, no forest land or timberland would be impacted by the construction of the project.

- d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

No impact. As noted in topic (c) above, the project site does not include any forest land. Therefore, there would be no impact.

e) Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No impact. The proposed activities would not alter the existing land use of the project site and no impacts to farmland or forest land would occur. Therefore, there would be no impact.

2.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.3.1 ENVIRONMENTAL SETTING

The proposed project is located in Stanislaus County, which is within the San Joaquin Valley Air Basin (SJVAB), and is under jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAB is comprised of Stanislaus, San Joaquin, Merced, Madera, Fresno, Kings, Tulare, and the San Joaquin Valley Air Basin portion of Kern County.

The SJVAB is characterized as having an “inland Mediterranean” climate. The San Joaquin Valley (valley) is approximately 250 miles long, and is surrounded by the Sierra Nevada Mountains to the east, the Coastal Range to the west and the Tehachapi mountains to the south. The valley is basically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay. The valley has a high potential for air pollution due to geography and

climate. The weather and terrain of the valley, including hot weather, bordering mountains, and periods of stagnant air are ideal conditions for forming and trapping pollutants. Pollutants are also transported into the Valley from the Bay Area and Sacramento Valley (SJVAPCD, 2002a).

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter less than 10 microns (PM₁₀), particulate matter less than 2.5 microns (PM_{2.5}), and lead. These standards have been established with a margin of safety to protect the public's health. Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) designate areas of the state as attainment, nonattainment, maintenance, or unclassified for the various pollutant standards according to the federal Clean Air Act (CAA) and the California Clean Air Act (CAA), respectively.

An "attainment" designation for an area signifies that pollutant concentrations did not violate the NAAQS or CAAQS for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as identified in the criteria. A "maintenance" designation indicates that the area was previously non-attainment and is currently attainment for the applicable pollutant; the area must demonstrate continued attainment for a specified number of years prior to redesignation as an "attainment" area. An "unclassified" designation signifies that data do not support either an attainment or nonattainment status.

The SJVAB is designated as a nonattainment area for the state 1-hour ozone standard, state and federal 8-hour ozone standards, the state PM₁₀ standard, and the state and federal PM_{2.5} standards. The SJVAB is considered an attainment area or unclassified for the other criteria pollutants.

To meet federal Clean Air Act requirements, the SJVAPCD has adopted an Ozone Attainment Demonstration Plan (2007), a PM₁₀ Attainment Demonstration Plan (2006), and a PM_{2.5} Attainment Demonstration Plan (2008). In addition, to meet California Clean Air Act requirements, the SJAPCD has also adopted an Air Quality Attainment Plan (1991) and corresponding updates to address the California ozone standard.

2.3.2 DISCUSSION

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less-than-significant impact. Air quality plans describe air pollution control strategies to be implemented by an air district, city, county or region. The SJVAPCD develops plans and implements control measures in an effort to advance valley attainment of CAAQS and NAAQS. Activities conducted in Stanislaus County are required to comply with provisions of the

SJVAPCD Rules and Regulations and Air Quality Plans that maintain compliance with federal standards for ozone, PM₁₀ and CO (SJVAPCD, 2002a and 2002b).

Two criteria are applicable to determine if the proposed project would conflict with or obstruct implementation of the air quality plan. The first criteria is whether the project would exceed the estimated air basin emissions used as the basis of the air quality plans, which are based, in part, on population and vehicle miles traveled (VMT) projections developed by the Metropolitan Transportation Commission (MTC). While the air quality plan includes mobile sources, minor changes in the assumptions relative to these sources would not obstruct the successful implementation of the strategies for improvement of the SJVAB's air quality. The proposed project would only result in minor changes to VMT as a result of construction equipment on the project site.

The second criteria is whether the project would increase the frequency or severity of violation of existing air quality violations, contribute to new violations, or delay the timely attainment of air quality standards. As discussed in item (b) below, operational emissions associated with the proposed project would not exceed the SJVAPCD thresholds of significance. Because the project would not significantly increase VMT and would not exceed the thresholds of significance, the project would not conflict with or obstruct the implementation of the applicable air quality plan. Therefore, the impact would be less than significant.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Construction Emissions

Less-than-significant impact with mitigation incorporated. Construction emissions are described as “short-term” or temporary in duration, but have the potential to represent a significant impact with respect to air quality. Construction activities such as grading, excavation, and travel on unpaved surfaces can generate substantial amounts of dust, and can lead to elevated concentrations of PM₁₀. Emissions from construction equipment engines also can contribute to elevated concentrations of PM₁₀ and CO, as well as increased emissions of ozone precursors.

The proposed project would result in the temporary generation of ROG, NO_x, PM₁₀, and PM_{2.5} emissions from construction work described in the project description. Off-site vehicle trips related to construction activities would be associated with material transport and delivery, equipment delivery, and worker commutes.

Emissions and emission concentrations can vary substantially from day to day, depending on the level of activity, the specific type of operation and the prevailing weather conditions. In addition to the use of off-road equipment, on-road heavy-duty vehicles would be required to haul materials to the project site.

SJVAPCD's published guidelines, *Guide for Assessing Air Quality Impacts* (SJVAPCD 2002b) do not require the quantification of construction emissions. Rather, the guidelines require implementation of effective and comprehensive feasible control measures to reduce PM₁₀

emissions (SJVAPCD 2002b). SJVAPCD considers PM₁₀ emissions to be the greatest pollutant of concern when assessing construction-related air quality impacts. Compliance with its Regulation VIII, including implementation of all feasible control measures specified in its *Guide for Assessing Air Quality Impacts* (SJVAPCD 2002b), constitutes sufficient mitigation to reduce construction-related PM₁₀ emissions to less-than-significant levels and minimize adverse air quality effects. The following measures recommended by the SJVAPCD shall be implemented to reduce construction-related emissions associated with off-road equipment and heavy-duty vehicles (SJVAPCD 2014b):

Mitigation Measure AQ-1: Reduce Construction-Related Emissions from Off-Road Equipment and Heavy-Duty Vehicles (Regulation VIII)

- a) All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- b) All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- c) All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- d) When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- e) All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)
- f) Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
- g) Limit traffic speeds on unpaved roads to 15 mph

According to the SJVAPCD, implementation of these control measures is sufficient to reduce construction-related emissions to a less-than-significant level. Therefore, the proposed project's construction activities would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and this impact would be reduced to less than significant.

Operational Emissions

Less-than-significant impact. Maintenance-related traffic associated with DWR vehicles is not expected to significantly escalate and exceed existing levels. Therefore, this impact would be less than significant.

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less-than-significant impact. The analysis of cumulative effects focuses on whether a specific project would result in cumulatively considerable emissions. By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SJVAB, and this regional impact is cumulative rather than being attributable to any one source. A project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The thresholds of significance are relevant to whether a project's individual emissions would result in a considerable incremental contribution to the existing cumulative air quality conditions. If a project's emissions would be less than these threshold levels, the project would not be expected to result in a considerable incremental contribution to the significant cumulative impact.

As discussed earlier, construction-generated and long-term operational emissions would result in a less than significant impact. Therefore, emissions associated with the proposed project would not result in a cumulatively considerable incremental contribution to a significant cumulative impact. This impact would be less than significant.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-than-significant impact. The SJVAPCD defines sensitive receptors as facilities that house or attract children, the elderly, people with illness, or those who are especially sensitive to the effects of air pollutants. Land surrounding the project site is primarily agricultural and undeveloped disturbed grassland. The nearest residential property is located approximately 1.1 miles northeast of the project site. Pollutants that could be generated by the proposed project, and that could result in adverse health effects on sensitive receptors include CO, respirable particulate matter (i.e., PM₁₀ and PM_{2.5}), and toxic air contaminants (TACs).

Construction activities would result in temporary, short-term emissions of particulate exhaust emissions from the off-road heavy-duty diesel equipment (diesel PM). Diesel PM was identified as a TAC by CARB in 1998. The risks estimated for an exposed receptor are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments should be based on a 70-year exposure period.

The possible sensitive receptor exposure period from the proposed project's construction activities is short (i.e., approximately 8 weeks) and would be less than 1% of the minimum exposure period for a health risk assessment. Haul trucks and off-road equipment would not operate in the immediate proximity of any sensitive receptor for an extended period of time. Thus, because the use of off-road, heavy-duty equipment would occur for a relatively small period of time and would not be in the immediate proximity of sensitive receptors, construction-related TAC emissions would not be anticipated to expose sensitive receptors to substantial concentrations of TACs. As mentioned earlier, the closest sensitive receptor is approximately 1.1 miles away. Therefore, this impact would be less than significant.

e) Would the project create objectionable odors affecting a substantial number of people?

Less-than-significant impact. Human response to odors is subjective, and sensitivity to odors varies greatly. Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, headaches).

A potential source of odor during maintenance activities is equipment exhaust. However, equipment exhaust would be localized and generally confined to the immediate area surrounding the proposed project site. The proposed project would use typical construction techniques, and the odors would be temporary and typical of most construction sites. Operation of the proposed project would not have any significant odor sources. Therefore, the project would not create objectionable odors that would affect a substantial number of people; impacts would be less than significant.

2.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL 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, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.4.1 ENVIRONMENTAL SETTING

The project site is located in eastern Stanislaus County, within the San Joaquin Valley Subregion of the Great Central Valley Geographic region of California (Baldwin, ed. 2012). The regional climate is generally Mediterranean in nature with warm, dry summers and rainy winters. The San Joaquin Valley Subregion is typically dryer and hotter than other areas of the central valley due to the lack of coastal weather influences associated with the Sacramento-San Joaquin River Delta. Annual temperatures in this area range from approximately 36 degrees Fahrenheit in December to approximately 97 degrees Fahrenheit in July. The average annual precipitation is approximately 10.69 inches per year (WRCC 2013).

Del Puerto Creek is located within the Lower Del Puerto Creek watershed, which meets the Kern Canyon-San Joaquin River watershed, and eventually drains into the San Joaquin River Delta and the Pacific Ocean.

Hydrology within the project site is largely influenced by the levee of the Aqueduct to the east, as well as the berm of I-5 to the west. These two features create a valley where water is channeled into the section of Del Puerto Creek within the project site. Water is further routed to the creek via the rock drain that channels runoff from the Aqueduct levee directly to the creek bed. Water then flows east through the concrete underchute structure and along Del Puerto Creek to the confluence of the San Joaquin river, approximately 6 miles northeast of the project site.

The project site falls within two separate soil map units: Zacharias gravelly clay loam, 2 to 5 percent slopes and Cortina gravelly sandy loam, 0 to 5 percent slopes, rarely flooded (NRCS 2014). Both of these soil types are gravelly, well drained to somewhat excessively drained and are derived from rocky alluvial deposits. Cortina gravelly sandy loam is considered a hydric soil (NRCS 2014).

Methodology

Prior to conducting field surveys, DWR biologists compiled a list of sensitive species and plant communities that have the potential to occur in the project area. The list was developed from a review of the following sources:

- US Fish and Wildlife Service (USFWS List of Threatened and Endangered Plants for Stanislaus County (USFWS 2014);
- The California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Plants within "Patterson, CA" 7.5 minute US Geological Survey (USGS) quadrangle (quad) and the eight surrounding quads (Solyo, Westley, Brush Lake, Copper Mountain, Crows Landing, Wilcox Ridge, Orestimba Peak, and Newman) (CNPS 2013); and
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) within "Patterson, CA" 7.5 minute USGS quad and the eight surrounding quads (CDFW 2014).

Field surveys were conducted at the project site over a period of four years, with DWR biologists visiting the site on September 9 and November 1, 2011, June 25, 2012, January 23, 2013, and November 3, 2014. The site was surveyed via meandering transects, focusing on areas of potential impacts and/or sensitive habitats.

Habitat Types

Dominant habitat types within the proposed project footprint include non-native annual grassland, sagebrush scrub, and riverine. Each of these habitat types is described further below. A list of all plant species observed onsite is included in Appendix A.

The proposed access road travels through non-native annual grassland dominated by bromes (*Bromus* spp.) and wild oat (*Avena* spp.). Scattered California sagebrush (*Artemisia californica*) occur along the access route, as well.

The banks of Del Puerto Creek contain more developed and woody vegetation. Plants along the bank of the creek consist primarily of California sagebrush, mustard (*Hirschfeldia incana*), perennial pepperweed (*Lepidium latifolium*), Italian thistle (*Carduus pycnocephalus*), and California Yerba Santa (*Eriodictyon californicum*). No trees occur within the project site, although several mature blue gum (*Eucalyptus globulus*) occur on an adjacent property approximately 0.17 miles to the northwest.

The bed of Del Puerto Creek is comprised primarily of gravel and small cobble. Sporadic vegetation occurs within approximately 10 percent of the channel and includes such species as gumplant (*Grindelia hirsutula*), salt heliotrope (*Heliotropium curassavicum*), and sunflower (*Helianthus annuus*).

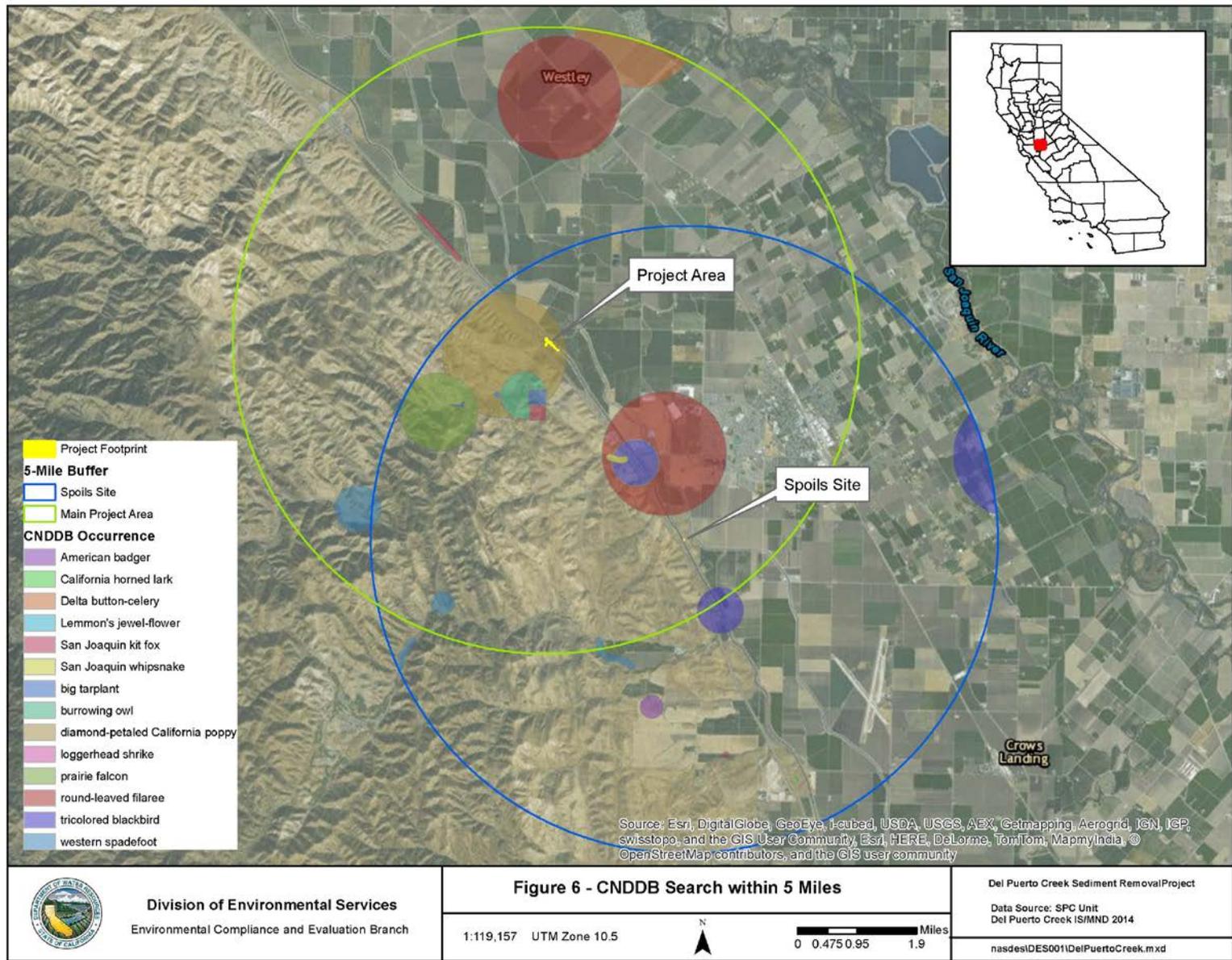
Special Status Species

For the purposes of this Initial Study, special-status has been defined to include those species that meet the definitions of rare or endangered plants or animals under CEQA including species that are:

- Listed as endangered or threatened under the FESA (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under CESA (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code Section 1901;
- Designated as fully protected, pursuant to California Fish and Game code Sections 3511, 4700, or 5050;
- Designated as a species of special concern to the CDFW; or
- Included in California Native Plant Society's Inventory of Rare Plants (Rare Plant Rank 1 through 4).

A table located in Appendix A provides a summary of regionally occurring special-status species based on queries of the CNDDDB, the CNPS database, as well as a species list from the USFWS.

The presence of each species or its habitat during the biological surveys is used as the rationale to determine if the species has the potential to occur within the project area. Special-status species without potential to occur within the project area are not discussed further. Based on this analysis, a total of six plants and seven special-status wildlife species with the potential to occur within the project area are discussed in detail below.



Western spadefoot (*Spea Hammondi*)

The western spadefoot is a toad found primarily in California, throughout the Central Valley and coastal lowlands from the San Francisco Bay to Mexico, at elevations from sea level to 4,460 feet (Jennings and Hayes 1994). This species primarily occurs in grasslands with shallow vernal pools, but occasionally are found in foothill grasslands, open chaparral, and pine oak woodlands. Breeding coincides with the rainy season and usually occurs from January to March in temporary pools and drainages. Adults remain close to their breeding pools in underground burrows for most of the year and will travel up to several meters on rainy nights (CWHR 2000).

The nearest CNDDDB occurrence of this species was documented in 2001 within Del Puerto Canyon, 3.7 miles southwest and upstream of the project area (Figure 6). Although Del Puerto Creek may provide seasonally suitable breeding habitat, the habitat within the project area is of marginal quality due to higher water velocities in the winter which decrease the likelihood this species utilizes the creek for breeding habitat. Although this species is unlikely to occur in this segment of the creek, direct impacts could result if project activities occur during the breeding season or when water is present within the creek. Additionally, upland refuge habitat may be temporarily impacted by construction staging and road grading. With implementation of Mitigation Measures BIO-1 and BIO-3, potential impacts to this species would be reduced to less-than-significant.

San Joaquin whipsnake (*Masticophis flagellum ruddocki*)

The San Joaquin whipsnake (coachwhip) is endemic to California and is usually found from Arbuckle in the Sacramento Valley southward to the Grapevine section of I-5 in Kern County, and westward to the inner South Coast Ranges (Stebbins and McGinnis 2012). This species generally occurs in open, dry, treeless areas, including grassland and saltbush scrub. It often utilizes rodent burrows and shade under vegetation and other objects for refuge.

The nearest documented CNDDDB record of this species is located along Del Puerto Canyon Road approximately 2.2 miles southeast of the project area (Figure 6). One adult snake was found killed on the roadway. This species may potentially utilize the grassland and shrubland habitat within the project area for foraging and/or refuge. Impacts could result from direct injury or death of a snake by vehicles or other construction equipment, grading, or placement of rip-rap. Implementation of Mitigation Measure BIO-1 would reduce potential impacts to this species to less-than-significant.

Burrowing Owl (*Athene cunicularia*)

Burrowing Owls are primarily a grassland species but are also known to occur in desert habitat and open shrub habitats within pinyon-juniper and ponderosa pine habitats (CWHR 1999). They are typically found from sea level to approximately 5,300 feet in elevation. Unlike many sensitive species, Burrowing Owls persist and even thrive in some landscapes that are highly altered by human activity. The overriding characteristics of suitable habitat appear to be the presence of burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation. Individuals in agricultural environments generally nest along

roadsides and water conveyance structures. Breeding typically occurs in February through August (CDFW 2012).

The nearest documented CNDDDB occurrence of this species was documented in 1991 approximately 0.6 miles southwest of the project area (Figure 6). No suitable burrows were observed within the project area; however, there may be suitable burrows for this species in the grassland north of Del Puerto Creek, as well as the levee of the Aqueduct. Impacts could occur if this species is utilizing burrows for nesting and rearing within 500 meters of construction activities. Noise and vibration from heavy equipment could result in altered breeding success. With implementation of Mitigation Measures BIO-1 and BIO-4c and BIO-4d, potential impacts to this species will be reduced to less than significant.

Swainson's Hawk (*Buteo swainsonii*)

Swainson's Hawk occupies grassland and shrubsteppe habitats, as well as canyons, foothills, and smaller interior valleys in otherwise mountainous regions in the Central Valley and Great Basin regions of California. Nesting habitat for this species includes large trees in or near riparian habitat with grassland, irrigated pasture, or grain field foraging habitat nearby. Swainson's Hawk generally begins nesting in late March and young usually leave the nest (fledge) by July, but may remain as late as September.

The project area is within a non-specific CNDDDB occurrence of this species that was documented in 1936 (Figure 6). Although no nests were observed during the site surveys, eucalyptus trees approximately 0.18 miles north of the project area provide potentially suitable nesting habitat for this species. The grassland within the main project area may provide suitable foraging habitat for this species. Impacts to this species could occur if they are nesting in these trees during project activities. However, with implementation of Mitigation Measures BIO-1a through BIO-1d, BIO-4a, BIO-4b, and BIO 4e impacts will be reduced to less than significant.

California Horned Lark (*Eremophila alpestris actia*)

California Horned Larks are known throughout the Coast Ranges and the California Central Valley. This species generally utilizes open habitat dominated by sparse low herbaceous vegetation or widely scattered low shrubs. Breeding typically occurs from March through July, with peak activity in May. They nest in hollows on the ground, generally next to grass tufts or clods of earth or manure (NatureServe 2014).

The nearest CNDDDB occurrence of this species was documented in 1993 approximately 4.1 miles south of the proposed spoils site (Figure 6). The spoils site is largely devoid of vegetation and does not provide suitable breeding or foraging habitat for this species. The grassland within the main project area may provide suitable breeding and foraging habitat for this species. Direct impacts to this species could occur if they are present when heavy equipment and other vehicles are working within this habitat. However, with implementation of Mitigation Measures BIO-1a through BIO-1d, BIO-4a and BIO-4b, impacts will be reduced to less than significant.

American badger (*Taxidea taxus*)

American badgers are uncommon but widely distributed throughout the state of California, except in the North coast region, from below sea level to over 12,000 feet in elevation. They generally inhabit a variety of open, arid habitats, but are most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils for burrowing. American badgers are generally solitary and possess large home ranges. Natal dens are constructed in dry, sandy soil with sparse over story vegetation. Young are born March through April and disperse after three or four months (CWHR 1990). Dens are elliptical in shape and are approximately 5.9 to 9.8 inches tall and 7.9 to 11.8 inches wide (JBRT 2011).

The nearest CNDDDB occurrence of this species is located 2.6 miles southwest of the proposed spoils site (Figure 6). Although the grassland in the project area may provide suitable habitat for this species, no suitable burrows were present in the project area at the time of the surveys, and the species is unlikely to occur within the project area. With implementation of Mitigation Measures BIO-1a through BIO-1g and BIO-5 impacts to this species as a result of construction activities would be less than significant.

San Joaquin kit fox (*Vulpes macrotis mutica*)

The San Joaquin kit fox is endemic to the Central Valley of California including the San Joaquin Valley and surrounding foothills of the Coast Ranges, Sierra Nevada, and Tehachapi Mountains, from southern Kern County north to Contra Costa County. In the northern part of its range, including San Joaquin, Alameda, and Contra Costa Counties, where most historic habitat on the valley floor has been eliminated, kit foxes now occur primarily in foothill grassland, valley oak savanna, and alkali grasslands (USFWS 1998). Dens are utilized for temperature regulation, shelter, and protection from predators. Dens can be constructed by kit foxes or kit foxes may move in to existing suitable burrows previously excavated by ground squirrels, badgers, coyotes, or other animals.

The nearest CNDDDB occurrence for this species was documented in 1973 approximately 1.1 miles south of the main project area, on the western side of I-5 (Figure 6). A second documented occurrence from 2004 is located approximately 2 miles north of the spoils site, between the Aqueduct and I-5. The grassland in the project area may provide suitable habitat for this species; however, no suitable burrows were noted within the project area. A large den, approximately 15 inches wide at the opening, was observed along the rock drain adjacent to the channel of Del Puerto Creek; however, signs (paw prints, scat, and the size of the burrow entrance) indicated this burrow was actively occupied by coyotes. Although unlikely, San Joaquin kit fox may take up residence in this burrow if it becomes available. With implementation of Mitigation Measures BIO-1a through BIO-1g and BIO-5 impacts to this species as a result of construction activities would be less than significant.

Lesser saltscare (*Atriplex minuscula*)

Lesser saltscare is known to occur exclusively in the San Joaquin Valley at elevations below 300 feet (Baldwin ed. 2012). Habitat for this annual herb includes alkaline and sandy soils in

chenopod scrub, playas, and valley and foothill grassland. The typical bloom season extends from May through October (CNPS 2014).

Although this species does not occur within five miles of the project site, there are several occurrences within ten miles with the closest approximately 6.9 miles east of the spoils site (Figure 6). The grassland within the project area may provide potentially suitable habitat for this species. This species was not observed within the project area at the time of the site surveys, which were conducted within the appropriate period for identification for this species; thus, this species is not likely to be adversely impacted as a result of project activities.

Big tarplant (*Blepharizonia plumosa*)

Big tarplant is currently known to occur in northwest San Joaquin Valley and eastern San Francisco Bay Area at elevations of less than 1,640 feet (Baldwin ed. 2012). Habitat for this annual herb includes valley and foothill grassland. The typical bloom season extends from July through November (CNPS 2014).

The nearest CNDDDB occurrence for this species is located approximately 0.81 miles southwest of the project area (Figure 6). This occurrence is one of several documented in 2003 in Del Puerto Canyon within 1 mile of the project area. The annual grassland in the staging area and along the creek may provide potentially suitable habitat for this species; however, this species was not observed within the project area during the site surveys, which were conducted within the appropriate period for identification. Thus this species is not anticipated to occur within the project area and is not likely to be adversely impacted as a result of project activities.

Round-leaved filaree (*California macrophylla*)

Round-leaved filaree is currently known to occur in the Inner North Coast Ranges, southern Sierra Nevada foothills, Great Central Valley, and central western California at elevations less than 3,940 feet (Baldwin ed. 2012). Habitat for this annual herb includes cismontane woodland and valley and foothill grassland. The typical bloom season extends from March through July (CNPS 2014).

The nearest CNDDDB occurrence for this species was documented in 2005 approximately 1.6 miles southeast of the project area (Figure 6). The annual grassland in the staging area and along the creek may provide habitat for this species; however, the quality of available habitat is poor due to the prevalence of non-native ruderal grasses and forbs that tend to out-compete low-growing grassland-adapted species such as round-leaved filaree. Although this species was not observed within the project area during the site surveys, they were conducted outside the appropriate period for identification. The likelihood this species occurs in the project area is low and implementation of Mitigation Measure BIO-2 will reduce potential to impact this species to less than significant.

Lemmon's jewel-flower (*Caulanthus lemmonii*)

Lemmon's jewel-flower is currently known to occur in the southwestern San Joaquin Valley, southeastern San Francisco Bay area, eastern outer South Coast Ranges, and inner South Coast

Ranges at elevations between 260 and 4,000 feet (Baldwin ed. 2012). Habitat for this annual herb includes pinyon and juniper woodland and valley and foothill grassland. The typical bloom season extends from March through May (CNPS 2014).

The nearest documented CNDDDB occurrence for this species was documented in 1938 in a nonspecific area at the mouth of Del Puerto Creek, approximately 0.19 miles west of the project area (Figure 6). The annual grassland in the project area may provide suitable habitat for this species; however, the habitat is of poor quality due to the prevalence of non-native ruderal species. It is unlikely this species occurs in the project area and, therefore, is not likely to be adversely impacted as a result of project activities.

Diamond-petaled California poppy (*Eschscholzia rhombipetala*)

Diamond-petaled California poppy is currently known from the western San Joaquin Valley (Carrizo Plain, San Luis Obispo County) and eastern San Francisco Bay area (Corral Hollow, Alameda County) at elevations below 984 feet. It was formerly also found in the inner North Coast Ranges and the eastern inner and outer South Coast Ranges (Baldwin ed. 2012). Habitat for this annual herb is alkaline clay in valley and foothill grassland. The typical bloom season extends from March through April (CNPS 2014).

The nearest documented CNDDDB occurrence for this species was documented in 1980 in a nonspecific area at the mouth of Del Puerto Creek, approximately 0.19 miles west of the project area (Figure 6). Although this species was not observed within the project area during the site surveys, they were conducted outside the appropriate period for identification. The likelihood this species occurs in the project area is low and implementation of Mitigation Measure BIO-2 will reduce potential to impact this species to less than significant.

Showy golden madia (*Madia radiata*)

Showy golden madia is currently known from San Joaquin Valley and South San Francisco Bay areas at elevations ranging from 66 to 3,937 feet (Baldwin ed. 2012). Habitat for this annual herb includes often clayey soils or shale in cismontane woodland and valley and foothill grassland. The typical bloom season extends from March through May (Baldwin ed. 2012, CNPS 2014).

The nearest CNDDDB occurrence for this species is located approximately 9 miles northwest of the main project area (Figure 6). Grassland within the project area provides only marginal habitat for this species due to the lack of proper soil substrates. The likelihood of this species occurring within the project area is very low. Thus, no impact is anticipated as a result of project activities.

Migratory Birds

Migratory birds are protected under the Migratory Bird Treaty Act of 1918 which makes it unlawful to harass, take, kill, or otherwise possess migratory birds without specific authorization to do so. Many species of migratory birds may utilize the project area throughout the year. Impacts could occur to birds if they are nesting within or in close proximity to the

project area. If birds are nesting within the project area at the time of construction, noise, vibration, or direct harm could cause mortality, nest abandonment, and reduction of breeding success. With implementation of Mitigation Measures BIO-1, BIO-4a and BIO-4b, potential impacts to nesting migratory birds will be reduced to less than significant.

2.4.2 DISCUSSION

- a) **Would the project 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, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service?**

Less than significant with mitigation incorporated. As discussed above, the project area provides potentially suitable habitat for the following special-status species: western spadefoot, San Joaquin whipsnake, Burrowing Owl, Swainson's Hawk, California Horned Lark, American badger, San Joaquin kit fox, lesser saltscreech, big tarplant, round-leaved filaree, lemmon's jewel-flower, diamond-petaled California poppy, and showy golden madia.

Mitigation Measure BIO-1: General conservation measures

To minimize potential impacts to plants and wildlife that may occur within the project area, the following general measures will be implemented:

- a) A qualified biologist will conduct pre-construction surveys no more than two weeks prior of the start of construction for any special status plants or wildlife that have the potential to occur within the project area.
- b) A qualified biologist shall conduct a training session for all construction personnel prior to the start of work. At a minimum, the training shall include a description and discussion of the importance of avoiding impacts to rare plants, western spadefoot, burrowing owl, California horned lark, San Joaquin kit fox, and San Joaquin whipsnake, the general measures that are being implemented to conserve these species as they relate to the project and project area, and procedures to follow should sensitive plants or wildlife be encountered during work.
- c) Any observations of federally or state-listed species will be reported to the USFWS and the CDFW within three (3) working days of the observation.
- d) All federally and state-listed species observed will be allowed to leave the project area on their own. The on-site biologist will determine whether activities must cease in order to ensure their protection.
- e) Project activities shall be performed during daylight hours.
- f) All trash shall be properly contained, removed from the work site, and disposed of properly to prevent attracting predators.
- g) Work shall be conducted during the dry season (generally between August 1 and October 31) but may be initiated sooner if no-flow conditions exist.

- h) All fueling and maintenance of vehicles or other equipment shall occur on established access roads and at least 50 feet away from the creek.
- i) Motorized equipment will be kept clean and in good working condition and will not be left idling while not in use.
- j) Absorbent materials will be available on site. Any accidental leaks or spills will be immediately cleaned up, and the equipment will not be able to return to the project area until it has been repaired sufficiently to prevent further leaks or spills.

Mitigation Measure BIO-2: Minimize impacts to special-status plants.

To reduce potential impacts to diamond-petaled poppy and/or round-leaved filaree that may be present within the project area to less-than-significant, the following measures will be implemented:

- a) A botanist will conduct one spring (March or April) and one summer (July through September) pre-construction survey for special status plants with potential to occur within the project area. If any are identified, they will be flagged and avoided if feasible.
- b) If special status plants are identified within the project area and cannot be avoided, the appropriate regulatory agencies will be consulted and an attempt will be made to transplant the individuals or collect and disperse seed.

Mitigation Measure BIO-3: Minimize impacts to migrating, breeding, and/or resident amphibians.

To further reduce potential impacts to western spadefoot that may utilize the project area for breeding, migration, and/or aestivation to less-than-significant, the following measures will be implemented:

- a) Work will be conducted when the creek is dry or under low-flow conditions.
- b) Work will not take place within 24 hours after rain events when amphibians may be moving overland.

Mitigation Measure BIO-4: Avoid and minimize impacts to special-status and migratory birds.

To further reduce potential impacts to burrowing owls, Swainson's Hawk, California Horned Lark, and/or migratory birds that may be utilize the project area for breeding and/or foraging to less-than-significant, the following measures will be implemented:

- a) If work is to take place within the general bird nesting season (April 1 through August 31), a qualified biologist will conduct preconstruction surveys and identify active migratory bird nests within 250 feet of the proposed project area no less than 14 days and no more than 30 days prior to start of construction. If no nests are found, no further mitigation is required. Construction activity that

occurs between September 1 and March 31, outside the nesting season, shall not require preconstruction nesting bird surveys.

- b) If an active nest is located within 250 feet of construction, an appropriate non-disturbance buffer zone shall be established around the nest in coordination with CDFW guidelines. Buffer zones shall be determined in consultation with CDFW and will depend on species of bird, site conditions, and type of work proposed in proximity to the nest. No new project activity shall occur within the buffer zone until the young have fledged, until the nest is no longer active, or until a qualified biologist has determined in consultation with CDFW that reducing the buffer would not result in nest abandonment. Monitoring of the nest by a qualified biologist during construction activities shall be required to ensure that the nest is not jeopardized by construction activities.
- c) Preconstruction surveys will be conducted for Burrowing Owls by a qualified biologist 30 days prior to construction. If an active burrow is found during the breeding season (February 1 through August 31), clear, visible markers will be placed on the roadways to clearly demarcate the burrow location so vehicles traveling either direction on the road and workers at the project site will avoid disturbing the area. Where feasible, buffer zones will be implemented to minimize disturbance impacts while construction activities are occurring, following recommendations in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012).
- d) If Burrowing Owls are present in the project area, active burrows will be monitored by a qualified biologist throughout the construction phase to determine the effectiveness of buffers, visual screens, or other measures, and to determine if the vehicle traffic is jeopardizing an active nest. DWR shall consult with CDFW for assistance in developing site-specific solutions, as needed, and to determine if the owls are sensitized to human disturbance and the survey effort can be reduced.
- e) If work is to take place during Swainson's Hawk nesting season (April 1 to August 31), a qualified biologist will conduct preconstruction surveys for Swainson's Hawk nests within ½ mile of the project area within 5 days prior to construction. If active nests are found, DWR shall consult CDFW for assistance in developing non-disturbance buffers and monitoring requirements based on the individual birds' sensitivity to human disturbance prior to beginning work.

Mitigation Measure BIO-5: Avoid impacts to special-status mammals.

To reduce potential impacts to American badger and San Joaquin kit fox to less-than-significant levels, the following measures outlined in the USFWS' *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011) will be implemented:

- a) A qualified biologist shall conduct a pre-construction survey on DWR property no less than 14 days and no more than 30 days prior to work commencing to

determine if any potential American badger or San Joaquin kit fox dens are located within 200 feet of the disturbance areas.

- b) If a potential den is discovered within 200 feet of the project boundary, a 50-foot exclusion zone shall be established around this den using stakes and flagging. No disturbance shall be allowed within this exclusion zone.
- c) If a potential den is discovered within the footprint of ground disturbing activities, the den shall be monitored for no less than three consecutive days with a tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den may be destroyed by careful excavation. Excavation shall cease if a kit fox is discovered during den destruction.
- d) If a natal/pupping den is discovered within 200 feet of the project boundary, the USFWS shall be immediately notified and the den shall not be disturbed or destroyed without prior authorization. Necessary take authorization/permits may be required prior to commencing construction activities.
- e) No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of potential dens.
- f) If at any time during project activities a trapped or injured kit fox is discovered, project activities shall cease and the onsite biologist shall contact the USFWS and the CDFW.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less-than-significant impact with mitigation incorporated. The project activities include restoring an access road on the south bank, and placement of rip-rap on both the northern and southern banks of Del Puerto Creek. These activities will result in permanent impacts to the banks of the creek as a result of vegetation removal, grading, and placement of rip-rap. However, the functions of the stream channel will be restored to original levels post-project and DWR will adhere to the terms and conditions set forth in requisite permits pertaining to riparian habitat. Additionally, Mitigation Measure BIO-1 will ensure that potential impacts will be less than significant with mitigation incorporated.

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

Less-than-significant impact with mitigation incorporated. The project activities include dredging accumulated sediment from the bed of Del Puerto Creek, restoring an access road on the south bank, and placement of rip-rap on both the northern and southern banks of the creek. Although these activities will result in temporary impacts to the bed of the creek, as well as permanent impacts to the banks of the creek, the functions of the stream channel will be

greatly improved. Overall, approximately 600 cubic yards of sediment will be removed from the channel and underchute structure, and between 10 and 20 cubic yards of rip-rap will be placed below the ordinary high water mark, which would constitute fill, as described in the Clean Water Act. Potential impacts to wetlands will be offset through mitigation described in Mitigation Measure BIO-6 and would, therefore, be reduced to less than significant.

Mitigation Measure BIO-6: Minimize impacts to potentially jurisdictional waters of the United States and waters of the State.

To reduce potential impacts to potentially jurisdictional waters of the United States and waters of the State within the project area, the following measures will be implemented:

- a) If water is present in the channel at the time of construction, a temporary coffer dam and/or sediment barrier (silt fence) will be installed prior to construction activities to prevent sediment from flowing downstream.
- b) Locate all staging areas, parking areas, equipment, and storage areas for fuel, lubricants, and solvents in areas away from waters of the United States and waters of the state.
- c) Prior to dredging or grading within Del Puerto Creek, a jurisdictional delineation of waters of the U.S. shall be prepared and submitted to the appropriate resource agencies for review and approval. Such agencies may include but are not limited to the United States Army Corps of Engineers, the California Department of Fish and Wildlife, and the Central Valley Regional Water Quality Control Board. Necessary regulatory permits shall be obtained and impacts to wetlands shall be mitigated through purchasing credits at an agency-approved mitigation bank in the region at no less than a 1:1 ratio.

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

Less-than-significant impact. Del Puerto Creek acts as a movement corridor for local wildlife, both during the wet season when water is flowing as well as during the dry season (generally between August 1 and October 31st). Construction activities will be temporary in nature and are designed to restore the functions of the stream channel to levels that existed prior to the sediment accumulation. Construction activities will take place over a 200 foot length of Del Puerto Creek and will not block wildlife movement across the creek. Work will be conducted during the dry season as to reduce impacts to migratory fish and amphibian species. As such, impacts are expected to be less than significant.

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

No impact. Stanislaus County General Plan Conservation/Open Space Element contains several goals and policies for the protection of natural resources including waterways and sensitive

species (Stanislaus County 1994). The proposed project would not result in conflicts with any of these policies by permanently reducing habitat or impacting biological resources. Further, the Stanislaus County Code of Ordinance does not contain specific provisions relating to species, waterways, trees, or habitat protection. Additionally, the proposed project will be conducted on land owned by DWR, within the right-of-way of the California Aqueduct and outside the Caltrans right-of-way for Interstate-5. Thus, the proposed project activities would have no impact on local policies or ordinances.

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

No impact. The proposed project area is not covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

Planning for a multi-species HCP/NCCP for Western Stanislaus County is currently underway, and the proposed project would fall within the proposed boundaries of this plan. However, the conservation strategy for this plan is currently in draft form, and analysis of consistency with a draft plan cannot be considered under CEQA. Therefore, the project will not conflict with the provisions of an adopted HCP/NCCP or other conservation plan, and there would be no impact.

2.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.5.1 ENVIRONMENTAL SETTING

A full cultural resources effects analysis was conducted in April, 2013 for the proposed project; it is summarized in the following discussion. The full analysis is available in Appendix B.

Methodology

DWR Archaeologists conducted a systematic archaeological survey of the project area on January 23, 2013. A record search of a ¼ mile radius around the project area was completed on October 17, 2012 by the staff at the Central California Information Center of the California Historical Resources Information System (CHRIS) at California State University, Stanislaus.

Based on the information gathered during the field visit and record search process, two cultural resources were identified within the project area and one historic linear feature (Delta Mendota Canal) recorded within ¼ mile of the Area of Potential Effects (APE). The resources within the APE cited in the CHRIS search include an unrecorded isolated hopper mortar and an unrecorded historic linear feature (the California Aqueduct). The hopper mortar was not relocated during the field survey in January 2013.

Archaeological Background

The western edge of the San Joaquin Valley had not been the focus of California archaeological studies until the Bureau of Reclamation and DWR began reservoir projects in the area. These projects occurred in two main phases, salvage archaeology for San Luis, Los Banos, and Little Panoche Reservoirs in the 1960's, and later reconnaissance surveys for the Los Banos Grandes

reservoir alternatives studying suitable locations for reservoirs in the 1990's (Bell et al 1993; Hines et al. 1992, 1993; Mikkelsen and Hildebrandt 1990; DPR 1993). Four of the five reconnaissance surveys for the Los Banos Grandes alternative sites are located in the western San Joaquin Valley in Stanislaus and Merced Counties.

The earlier phase of salvage work for the reservoir projects was instrumental in creating a cultural chronological sequence for the northwestern San Joaquin Valley. Olsen and Payen (1969) postulated estimated dates for the prehistoric cultural sequence of the local area that includes the Positas, Pacheco, Gonzaga, and Panoche complexes. The earliest complex is not well dated, but the local sequence provides an archaeological framework from the later part of the Middle Holocene (7700-3800 BP) through the Late Holocene (3800-150 BP).

Ethnographic Setting

The project area lies within territory assigned to the Nopchinchi subdivision of the Northern Valley Yokuts (Wallace 1978). The Northern Valley Yokuts territory ranged from Bear Creek in the north to Fresno in the South. The Nopchinchi subdivision lies largely on the west side of the San Joaquin River.

Material culture is known primarily from archaeological contexts but closely parallels that of the Central California interaction sphere in general. Structures consisted of small round or oval, lightly built dwellings that were covered with woven tule mats. Besides the more common house structures, there were also sweathouses and ceremonial assembly chambers, both much larger and rarer than the average dwelling. Technology consisted of woven mats, basketry, nets, and cordage, stone pestels, handstones, millingslabs, bowls, hopper and bedrock mortars, as well as stone, bone, and antler tools of many kinds. Other materials were gained through the east-west trade networks with coastal tribes (Bethard and Basgall 2000).

Historic Background

The Del Puerto Creek Canyon has been used historically for three main purposes, as a transportation route between the San Joaquin, San Antonio and Santa Clara Valleys, for grazing cattle and sheep, and as a mining district. The earliest references to Del Puerto Creek in a 1810 document indicate the Del Puerto Canyon was an established route for mission expeditions (Bell et al. 1993). In 1844, the Mexican Rancho del Puerto was established with its northern boundary along El Puerto Creek and was utilized primarily for grazing.

John Patterson acquired the Rancho Del Puerto in 1866 and began grazing sheep and planting barley. Patterson, like other farmers in the San Joaquin Valley shipped their grain on the river until 1887 when the Southern Pacific Railroad line was built in response to the agricultural boom. The town of Patterson was sub-divided and laid out to serve as the hub of a farming community in 1902 by Patterson's nephew (Patterson County Historical Society n.d. cited in Bell et al. 1993).

Both the town of Patterson and the railroad facilitated mining operations in and near the canyon. Primarily, manganese, magnesite, and chromium were mined. Various mining

operations continued to operate in the canyon until the end of World War II. From the early 1920's to 1940's Del Puerto Canyon was mainly used for grazing. After World War II, sheep replaced cattle and the grain fields were gradually replaced by orchards and vegetable crops.

California Aqueduct

By the mid-1950s, DWR identified the primary water issue in California as one of maldistribution. According to the DWR, too much water was wasted in northern California, and too little rain fell in southern California (DWR 1957:10–11). In a time of increasing population growth, local governments and water officials realized that their water supplies could not meet the growing demand of their communities. Farmers were also draining regional groundwater basins to irrigate their crops (DWR 2011).

To rectify this issue, state engineer Arthur D. Edmonston published a proposal that included an Aqueduct to transport water from the Sacramento-San Joaquin Delta to Santa Clara and Alameda Counties; and a second Aqueduct to serve the San Joaquin Valley and southern California (DWR 2011). Edmonston proposed the construction of a giant Aqueduct fed by massive, custom-designed pumps that would force the water from the Delta southward, where it could be used to water the dry southern valley and the cities of southern California (DWR 1974:7). These planning efforts eventually came to fruition as the State Water Project (SWP). A key component of the SWP is the California Aqueduct, the primary delivery system of the SWP. Construction on the California Aqueduct began in 1960 and the main line was completed in 1973 (Autobee 2011:8; Golze 1965:8).

2.5.2 DISCUSSION

a) Would the Project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Less than significant. The project activities are designed to prolong the efficiency and function of the waterway and associated features and are in compliance with the regular maintenance work currently being implemented along the Aqueduct. All activities are envisioned to keep the Aqueduct operating as it was historically, moving and delivering water. The proposed activities follow the Secretary of the Interior's Standards for the Treatment of Historic Properties and will not materially alter in an adverse manner those physical characteristics that convey the Aqueduct's historical significance and that justify its inclusion in the California Register of Historical Resources under criteria 1 or 3. Based on this analysis, DWR finds the proposed project will have a less than significant impact on a historical resource.

b) Will the project cause a substantial adverse change in the significance of an archaeological resource pursuant to 150645.5?

Less-than-Significant with Mitigation Incorporated. No archaeological resources were identified within the Area of Potential Effect (APE) on the record search or during the archaeological survey. Although archival and field research revealed no archaeological resources within the APE, undiscovered subsurface cultural remains, although extremely unlikely, may nevertheless

be present in the area and could be disturbed by the proposed projects. With implementation of Mitigation Measure CUL-1, this potential impact would be reduced to a less than significant level.

Mitigation Measure CUL-1: Halt Ground-Disturbing Construction Activities if Cultural Materials Are Discovered

If a discovery of cultural materials (e.g., unusual amounts of shell, animal bone, flaked stone, bottle glass, ceramics, structure/building remains, etc.) is encountered during project construction, ground disturbances in the immediate vicinity of the find shall be halted immediately and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per the California Register of Historical Resources (CRHR) and identify appropriate management steps needed to protect and secure identified resources.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

No impact. Archival and field research revealed no paleontological resources are known to occur within the APE. Project-related earth moving activities include grading existing access roads, and removing sediment from the creek that has accumulated at the underchute structure. Sediment accumulation includes gravel and cobble transported downstream from the upper reaches of Del Puerto Creek. This surface material is unlikely to contain paleontological resources. Thus, paleontological resources and/or unique geological features are not anticipated to be impacted as a result of project-related activities.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less-than-Significant with Mitigation Incorporated. No evidence of human remains at the project site was found in documentary research, and it is extremely unlikely that buried human remains are present. While project activities do not require extensive excavation, proposed ground-disturbing activities on the project site could adversely affect presently unknown prehistoric burials. California law recognizes the need to protect interred human remains, particularly Native American burials and associated items of patrimony, from vandalism and inadvertent destruction. In light of the potential to uncover unknown or undocumented Native American burials, this impact would be potentially significant. Implementation of Mitigation Measure CUL-2 would reduce this impact to a less than significant level.

Mitigation Measure CUL-2: Halt Construction Activities if Any Human Remains Are Discovered

The procedures for the treatment of discovered human remains are contained in Sections 7050.5 of the California Health and Safety Code and Section 5097.98 of the California Public Resources Code.

In accordance with the California Health and Safety Code, if human remains are uncovered during ground disturbing activities, such activities that may affect the remains shall be halted and DWR or its designated representative shall be notified. DWR shall immediately notify the county coroner and a qualified professional archaeologist. If the coroner determines that the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code, Section 7050.5[c]).

DWR's responsibilities for acting upon notification of a discovery of Native American human remains are identified in detail in Section 5097.98 of the California Public Resources Code. DWR or its appointed representative and the professional archaeologist shall consult with a Most Likely Descendant (MLD) determined by the NAHC regarding the respectful disposition of the remains.

2.6 GEOLOGY AND SOILS

ENVIRONMENTAL 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 California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.6.1 ENVIRONMENTAL SETTING

Del Puerto Creek runs from the Diablo Mountain Range in the west to the San Joaquin River in the east. The creek runs under the Aqueduct via a culvert underchute structure just north of Patterson, California. The topography of the project site consists primarily of flat ground, with slopes along the banks of Del Puerto Creek, as well as slopes (presumed to be fill material) from the Aqueduct levees.

Several known faults exist within Stanislaus county, located west of I-5 in the Diablo Mountain Range. The Diablo Range has unstable geologic formations that, due to structure, slope, runoff, lack of vegetation, earthquake and human activity are susceptible to ground failure and landslide. The southern portion of the Diablo Range includes the Ortigalita Fault, part of which is designated as an Alquist-Priolo Earthquake Fault Zone. This fault zone extends along the fault into Stanislaus County approximately 7 miles. The zone is 1000 feet wide centered on the identified fault (Stanislaus County 1994). The proposed project is located east of I-5, outside of the Diablo Range, and subsequently, outside of an Alquist-Priolo Earthquake Fault Zone and areas susceptible to ground failure and landslides.

The project area falls within two separate soil map units: Zacharias gravelly clay loam, 2 to 5 percent slopes and Cortina gravelly sandy loam, 0 to 5 percent slopes, rarely flooded (NRCS 2014). Both of these soil types are gravelly, well drained to somewhat excessively drained and are derived from rocky alluvial deposits. Cortina gravelly sandy loam is considered a hydric soil (NRCS 2014).

2.6.2 DISCUSSION

a) **Would the project 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 California Geological Survey Special Publication 42.)

No impact. Del Puerto Creek and the project vicinity are not located within an Alquist-Priolo Earthquake Fault Zone (CA Geological Survey 2010). While the Ortigalita Fault, part of which is designated as a Fault Zone, is located in the southern portion of the Diablo Range, the fault is approximately 20 miles from the project area. The project area is located in the valley portion of Stanislaus County, outside of the areas susceptible to ground failure and landslides. Furthermore, there are no known faults that pass through or are immediately adjacent to the project site. Therefore, project activities at this location would not expose people or structures to risk of loss, injury, or death due to a rupture of a known earthquake fault. There would be no impact.

ii) Strong seismic ground shaking?

Less-than-significant impact. The Ortigalita Fault is located approximately 20 miles southwest of the project site and the Greenville Fault is approximately 21 miles west of the project site. No faults are currently known to exist within the valley portion of Stanislaus County. Within the Diablo Range, the most recent movements were along the Tesla-Ortigalita fault approximately 5 million years ago, although earthquake activity without surface fracturing or faulting is still common (Stanislaus County 1994).

West of I-5, there are geological formations that, due to structure, slope, runoff, lack of vegetation, earthquake and human activity, are extremely susceptible to ground failure and sliding (Stanislaus County 1994). The proposed project is located East of I-5, outside of this “danger” zone. Therefore, strong seismic ground shaking is unlikely at the project location, and impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-than-significant impact. The soils within Del Puerto Creek consist primarily of gravelly sandy loam, with the surrounding area consisting of gravelly clay loam (United States Department of Agriculture 2013). It is possible that loose sands may be present at the project site, but the project site is not known to be within an area of liquefaction, and Stanislaus County is not located in the U.S. Geological Survey Liquefaction Hazard Map for Northern California or Susceptibility Map (USGS 2012). This impact would be less than significant.

iv) Landslides?

Less-than significant impact. According to the Stanislaus county General Plan, the area located west of I-5 is composed of geological formations that are considered extremely susceptible to ground failure and landslides. The project site is located east of I-5, outside of this “danger” zone. Because the project landscape is generally flat, and not in an area susceptible to landslides, the risk of landslides is very low and any associated impacts would be less than significant.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less-than-significant impact. The project consists of improving existing access roads, removing loose sediment from the creek, restoring the creek embankment to its original contour, and placing rip-rap along the embankments. While placement of A/B on access roads could cover topsoil, it would be a relatively small area, and the A/B would still allow for drainage. Therefore, this impact would be less than significant.

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

Less-than-significant impact. As discussed in section (a), the project is located in an area that is not susceptible to landslides, has a very low risk of liquefaction, and contains no known faults within or immediately adjacent to it. Therefore, this impact would be less than significant.

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

Less-than-significant impact. There are to be no structures built on or along Del Puerto Creek with the exception of the access ramp within the creek. The proposed project may occur on expansive soils; however, the nature of the project is such that it would not create a substantial risk to life or property. This impact would be less than significant.

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

No impact. The proposed project would not require the use of septic tanks or alternative wastewater disposal systems; therefore, there would be no impact.

2.7 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Greenhouse Gas Emissions. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.7.1 ENVIRONMENTAL SETTING

In May 2012, DWR adopted the DWR Climate Action Plan-Phase I: Greenhouse Gas Emissions Reduction Plan (GGERP), which details DWR’s efforts to reduce its greenhouse gas (GHG) emissions consistent with Executive Order S-3-05 and the Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32). DWR also adopted the Initial Study/Negative Declaration prepared for the GGERP in accordance with the CEQA Guidelines review and public process. Both the GGERP and Initial Study/Negative Declaration are incorporated herein by reference and are available at: <http://www.water.ca.gov/climatechange/CAP.cfm>. The GGERP provides estimates of historical (back to 1990), current, and future GHG emissions related to operations, construction, maintenance, and business practices (e.g. building-related energy use). The GGERP specifies aggressive 2020 and 2050 emission reduction goals and identifies a list of GHG emissions reduction measures to achieve these goals.

DWR specifically prepared its GGERP as a “Plan for the Reduction of Greenhouse Gas Emissions” for purposes of CEQA Guidelines section 15183.5. That section provides that such a document, which must meet certain specified requirements, “may be used in the cumulative impacts analysis of later projects.” Because global climate change, by its very nature, is a global cumulative impact, an individual project’s compliance with a qualifying GHG Reduction Plan may suffice to mitigate the project’s incremental contribution to that cumulative impact to a level that is not “cumulatively considerable.” (See CEQA Guidelines, § 15064, subd. (h)(3)).

More specifically, “later project-specific environmental documents may tier from and/or incorporate by reference” the “programmatic review” conducted for the GHG Emissions Reduction Plan. “An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable,

incorporate those requirements as mitigation measures applicable to the project.” (CEQA Guidelines § 15183.5, subd. (b)(2).)

Section 12 of the GGERP outlines the steps that each DWR project will take to demonstrate consistency with the GGERP. These steps include: 1) analysis of GHG emissions from construction of the proposed project; 2) determination that the construction emissions from the project do not exceed the levels of construction emissions analyzed in the GGERP; 3) incorporation into the design of the project DWR’s project level GHG emissions reduction strategies; 4) determination that the project does not conflict with DWR’s ability to implement any of the “Specific Action” GHG emissions reduction measures identified in the GGERP; and 5) determination that the project would not add electricity demands to the State Water Project (SWP) system that could alter DWR’s emissions reduction trajectory in such a way as to impede its ability to meet its emissions reduction goals.

Consistent with these requirements, a GGERP Consistency Determination Checklist is attached as Appendix C, documenting that the project has met each of the required elements.

2.7.2 DISCUSSION

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

Less-than-significant impact. Based on the analysis provided in the GGERP and the demonstration that the proposed project is consistent with the GGERP (as shown in the attached Consistency Determination Checklist), DWR as the lead agency has determined that the proposed project’s incremental contribution to the cumulative impact of increasing atmospheric levels of GHGs is less than cumulatively considerable and, therefore, less than significant.

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

Less-than-significant impact. The State CEQA Guidelines require environmental analyses to evaluate both the level of GHG emissions associated with construction and operation of a project and the project’s consistency with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

DWR has developed a “Climate Action Plan Phase 1: Greenhouse Gas Emissions Reduction Plan” (GGERP) to guide its efforts in reducing GHG emissions (DWR 2012). The GHG emissions reduction measures proposed in the Plan were developed for the purpose of reducing emissions of GHGs in California as directed by Executive Order (EO) S-3-05 and AB 32. DWR has established the following GHG Emissions Reduction Goals:

- Reduce GHG emissions from DWR activities by 50% below 1990 levels by 2020; and
- Reduce GHG emissions from DWR activities by 80% below 1990 levels by 2050.

Pre-construction and Final Design Best Management Practices (BMPs) from the GGERP are designed to ensure that individual projects are evaluated and their unique characteristics taken into consideration when determining if specific equipment, procedures, or material requirements are feasible and efficacious for reducing GHG emissions from the project. Some of the BMPs listed in the GGERP (BMPs 3, 4, 5, 11, 12, and 13) were not included in this document since they were not applicable to this project. All variances from the GGERP were approved by the DWR CEQA Climate Change Committee (see GGERP Consistency Determination form; Appendix C).

The proposed project would implement the following Pre-construction and Final Design BMPs:

- **BMP 1.** Evaluate project characteristics, including location, project work flow, site conditions, and equipment performance requirements, to determine whether specifications of the use of equipment with repowered engines, electric drive trains, or other high efficiency technologies are appropriate and feasible for the project or specific elements of the project.
- **BMP 2.** Evaluate the feasibility and efficacy of performing on-site material hauling with trucks equipped with on-road engines.
- **BMP 6.** Limit deliveries of materials and equipment to the site to off peak traffic congestion hours.

According to the GGERP, all DWR projects are expected to implement all construction BMPs unless a variance is granted and approved by the DWR CEQA Climate Change Committee (DWR 2012). Therefore, the proposed project will incorporate the following BMPs into the project design:

- **BMP 7.** Minimize idling time by requiring that equipment be shut down after five minutes when not in use (as required by the State airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and provide a plan for the enforcement of this requirement.
- **BMP 8.** Maintain all construction equipment in proper working condition and perform all preventative maintenance. Required maintenance includes compliance with all manufacturer's recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of all engine and emissions systems in proper operating condition. Maintenance schedules shall be detailed in the Air Quality Management Plan prior to commencement of construction.
- **BMP 9.** Implement tire inflation program on jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every two weeks for equipment that remains on-site. Check vehicles used for hauling materials off-site weekly for correct tire inflation. Procedures for the tire inflation program shall be documented in an Air Quality Management Plan prior to commencement of construction.

- **BMP 10.** Develop a project specific ride share program to encourage carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
- **BMP 14.** Develop a project specific construction debris recycling and diversion program to achieve a documented 50% diversion of construction waste.
- **BMP 15.** Evaluate the feasibility of restricting all material hauling on public roadways to off-peak traffic congestion hours. During construction scheduling and execution minimize, to the extent possible, uses of public roadways that would increase traffic congestion.

The proposed project would not conflict with the AB 32 Scoping Plan, the SJVAQCD CEQA guidelines, GGERP, or any other plans, policies, or regulations for the purpose of reducing GHG emissions. Based on the analysis provided in the GGERP and the demonstration that the proposed project is consistent with the GGERP (as shown in Appendix C), DWR as the lead agency has determined that the proposed project's incremental contribution to the cumulative impact of increasing atmospheric levels of GHGs is less than cumulatively considerable and, therefore, the impact would be less than significant.

The proposed project will have a less-than-significant impact because it conflicts with some of the BMPs of the GGERP. All applicable Project Level GHG Emissions Reduction Measures have been incorporated into the design or implementation plan for the project and Measures not incorporated have been listed and determined not to apply to the proposed project (see Consistency Determination form).

2.8 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.8.1 ENVIRONMENTAL SETTING

According to the Stanislaus County General Plan, the use, transportation and disposal of hazardous materials is becoming an issue of increasing concern. State laws were passed in 1985 that require users of hazardous materials to disclose the type and location of such materials so that emergency response teams can be prepared for potential disasters. Routes are being specified to limit transportation of hazardous material such as nuclear waste.

Construction and maintenance for the proposed project will require the use of minor amounts of hazardous materials in the form of fuel and lubricants for construction equipment, and would not require extensive or on-going use of acutely hazardous materials or substances.

2.8.2 DISCUSSION

a) **Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less-than-significant impact with mitigation incorporated. Construction of the proposed project would not require extensive or on-going use of acutely hazardous materials or substances. Project activities would involve limited transport, storage, use, or disposal of hazardous materials. Some examples of hazardous materials handling include fueling and servicing construction equipment on-site, and the transport of fuels, lubricating fluids, and solvents. These types of materials, however, are not acutely hazardous, and all storage, handling, and disposal of these materials is regulated by the California Department of Toxic Substances Control (DTSC), U.S. Environmental Protection Agency, California Environmental Protection Agency, and the Occupational Safety & Health Administration.

Operation of the proposed project would be consistent with existing practices used by DWR. All hazardous materials would be stored and used in accordance with applicable federal, state, and local regulations. In addition, proper spill management, including response plans and spill kits, would be implemented and maintained onsite, as is currently required by DWR. None of the project components would generate new sources of hazardous materials.

In order to minimize potential for impacts due to hazards and hazardous materials the following mitigation measures will be implemented:

Mitigation Measure HM-1: All personnel involved in use of hazardous materials will be trained in emergency response and spill control. Diesel fuel and oil will be used, stored and disposed of in accordance with standard protocols for the handling of hazardous materials.

Mitigation Measure HM-2: Soils contaminated by any hazardous material spills during construction would be excavated, removed or mopped up from the site and disposed of at an appropriate regional landfill.

By implementing these mitigation measures, impacts related to the routine use of hazardous materials would be less than significant with mitigation incorporated.

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

Less-than-significant impact. Materials used in the proposed project are not acutely hazardous, and are similar to materials already used by DFD for maintenance of facilities and structures. Implementation of the proposed project would not increase the risk of the release of hazardous materials into the environment, and this impact would be less than significant.

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

No impact. The nearest school to the project area is Apricot Valley Elementary School, located in Patterson approximately 2.3 miles northeast of the proposed project (spoil site). There will be no hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or wastes within one-quarter mile of an existing or proposed school. Therefore, there would be no impact.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-than-significant impact. The Hazardous Waste and Substances Sites List (Cortese List) is compiled by the DTSC in accordance with California Government Code Section 65962.5. A search of the Cortese List and search for sites with reported hazardous material spills, leaks, ongoing investigations and/or remediation near the project site was performed using the DTSC online EnviroStor database (DTSC 2014) and the State Water Resources Control Board GeoTracker database (SWRCB 2014).

The search of site listings within the EnviroStor database identified the nearest hazardous material listing approximately 1.06 miles southeast of the project area (spoil site). The site identified is The Stanislaus Bombing Target Formerly Used Defense Site (FUDS). The FUDS was used for dive bombing practice runs, artillery, and carrier landing practice for fleet air groups. A site inspection (SI) was conducted and a final report prepared by Parsons for the U.S. Army Corps of Engineers (*Final Site Inspection Report Former Stanislaus Bombing Target, Stanislaus County, CA*) in April 2010. The SI included soil sampling and analysis for explosives, metals, and pH. No explosive compounds were detected, but evidence of munitions debris was observed. The report concluded that there was no unacceptable risk to human receptors from exposure to munitions constituents (MC) in surface soil; however, there was potential exposure to MC in subsurface soil. MC sampling of the subsurface soil was recommended, but based on the relatively low sensitivity of items found, time-critical removal action was not warranted. The FUDS is currently used for cattle grazing and farming. Due to the conclusions of the report, the current use of the FUDS, the distance from the proposed project site, and the proposed use (spoil site), this impact would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No impact. The project site is not located within an airport land use plan. The Modesto City-County Airport is the nearest public airport and is about 21 miles northeast from the project site. The Stanislaus County Airport Land Use Commission Plan, adopted in 1978 and amended in 2004 identifies the planning boundary for all airports within Stanislaus County. The project area is not within the Modesto City-County Airport land use plan. A small private airport, Patterson Airport, is 1.76 miles from the project site. The project area is outside of the planning area boundary for Patterson Airport. The project is located within the Crows Landing Naval Auxiliary Landing Field planning area as stated in the Stanislaus County Airport Land Use Commission Plan. However, Crow's Landing was closed in 1999 by NASA, and is currently abandoned. Because all project activities are outside of the Stanislaus County Airport Land Use Commission Plan area, there would be no impact.

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

No impact. As noted in item (e) above, the closest private airport to the proposed project would be the Patterson Airport. The project is located outside of the planning boundary. Thus, no impacts to private airstrips or people residing near an airstrip would occur.

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

No impact. During the project period, emergency response routes and plans would not be impacted by construction activities at the project site. The proposed project would not require any road or land closures during construction. The proposed project would not impair or interfere with emergency access to the California Aqueduct, including any emergency response or evacuation routes. No impact would occur.

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?

Less-than-significant impact. The project site is located within a moderate fire hazard zone as mapped by the California Department of Forestry and Fire Protection (Cal Fire). Dry vegetation at the site poses a potential fire hazard if it were to be inadvertently ignited by vehicles; however, site preparation measures including grading of access roads and staging areas will significantly reduce the risk of fire during project activities by removing potential fire fuel from areas that will be traversed by vehicles and equipment. With these measures in place, the project would not increase the risk of loss, injury or death due to wildland fire.

2.9 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 on- or off-site erosion or siltation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 on- or off-site flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
j) Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.9.1 ENVIRONMENTAL SETTING

Del Puerto Creek is historically a west-side tributary to the San Joaquin River, draining the eastern slopes of the Diablo Range. The construction of the SWP and I-5 divided this waterway along its length, and cement underchute structures were built to maintain a downstream connection with the San Joaquin River. Within the project area, the decreased slope and size of the streambed reduces the creek’s channel capacity. The Aqueduct levee and the berm of I-5 create a valley where water is channeled into this section of Del Puerto Creek. Flows from the creek rarely reach the San Joaquin River except during flood events (USACE 2002). The creek is ephemeral; water is present in this drainage during the late fall/early winter until spring, and is otherwise dry the rest of the year.

2.9.2 DISCUSSION

a) Would the project violate any water quality standards or waste discharge requirements?

Less-than-significant with mitigation incorporated. This project is likely to result in short-term impacts to water quality. The removal of silt/cobble from the drainage, along with the erosion repair along the creek embankments has the potential to result in siltation. If any siltation occurs, it is expected to be temporary, and proper erosion control measures are expected to be put in place. Additionally, DWR will adhere to the requirements of the Regional Water Quality Control Board. In accordance with **Mitigation Measures BIO-3 and BIO-7**, work will be done while the creek is dry; which will ensure that impacts to water quality would be less than significant. Therefore, impacts related to water quality during the proposed activities would be less than significant with mitigation incorporated.

b) Would the project 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 that would not support existing land uses or planned uses for which permits have been granted)?

Less-than-significant impact. The proposed project would not use groundwater during construction (e.g., dust control, vehicle washing) or operations. Additionally, although the project would result in grading and compaction of approximately 0.94 acres of existing unimproved roads, they will be covered with a porous material (aggregate base). This action would be minor and would not interfere with groundwater recharge; therefore, this impact would be less than significant.

- c) Would the project 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 on- or off-site erosion or siltation?**

Less-than-significant impact. The project would not significantly increase drainage flow or substantially alter the existing drainage patterns in the area, as the course of the existing channel will not be altered. Erosion control methods such as placement of rip rap revetment along disturbed banks of the channel and placement of aggregate base on newly graded roadways will reduce potential for erosion and siltation at the project site. Additionally spoil areas will utilize erosion control measures such as placement of straw wattles if there is potential for erosion of newly deposited soil materials into a waterway. Therefore, this impact would be less than significant.

- d) Would the project 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 on- or off-site flooding?**

Less-than-significant impact. As discussed in items (b) and (c), the project would restore function to the existing stream channel and is not be expected to alter existing drainage patterns or increase runoff. Thus, this project would not contribute to an increase in on- or off-site flooding. This impact would be less than significant.

- e) Would the project 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?**

Less-than-significant with mitigation incorporated. There is a potential for a release of pollutants into adjacent waters from equipment used for the proposed projects (frontend loader, backhoe, excavator, dozer, grader, skid-steers, low boy truck/trailer, water truck, dump truck). Work will be conducted while the creek is dry, and no equipment shall be stored overnight in the waterway. **Mitigation Measures AQ-1, BIO-1, and HM-2** include measures to ensure equipment is in proper working order and remediate any issues immediately. Therefore, this impact would be less than significant with mitigation incorporated.

- f) Otherwise substantially degrade water quality?**

Less-than-significant with mitigation incorporated. As discussed in a), c), and e) above, the proposed project would not substantially degrade water quality. With the implementation of **Mitigation Measures AQ-1 and BIO-1**, this impact would be less than significant with mitigation incorporated.

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

No impact. The proposed project would not provide new housing nor is it located within a 100-year flood hazard area. Thus, there would be no impact.

h) Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No impact. The project area is not located within the 100-year floodplain. The proposed project would not place any structures that would impede or redirect flood flows; therefore, there would be no impact.

i) Would the project 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?

Less-than-significant impact. The proposed project will aid in improving the water capacity and flow of the creek, and does not involve any excavation into any dam faces or levees. There are no known faults that pass through or are immediately adjacent to the project site, and the proposed project is not located in a high seismic zone. This would be a less than significant impact.

j) Would the project result in inundation by seiche, tsunami, or mudflow?

No impact. The proposed project would not affect the existing risk for seiche or tsunami to occur and would not increase populations located within an area subject to seiche or tsunami. There would be no impact.

2.10 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Land Use and Planning. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.10.1 ENVIRONMENTAL SETTING

The project is located in an area where adjacent lands are designated for Agriculture by the Stanislaus General Plan. Surrounding land uses include I-5, the State Water Project, and agriculture.

2.10.2 DISCUSSION

a) Would the project physically divide an established community?

No impact. The proposed project area is located on DWR property, and utilizes an existing access road on adjacent property designated as agricultural. The project would not alter the existing use of the site and would not divide an established community. There would be no impact.

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

No impact. The project area is owned and maintained by DWR, and utilizes an existing access road on adjacent private property. The proposed project falls under maintenance requirements necessary to ensure the proper and safe function of the SWP. Implementation of the proposed project would not alter or change the existing land use or water conveyance operations of DWR. Thus, the proposed projects would not conflict with any land use policies or regulations, and no impacts would occur.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No impact. There are no approved HCPs or NCCPs that cover the project area. Thus, there would be no impact.

2.11 MINERAL RESOURCES

ENVIRONMENTAL 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.11.1 ENVIRONMENTAL SETTING

The California Department of Conservation, California Geological Survey (CGS) conducts Mineral Land Classification surveys which designate land areas, such as mineral resources zones or aggregate resources zones. According to the Stanislaus County General Plan, which relies on the State Division of Mines and Geology report, *Mineral Land Classification of Stanislaus County, California* (Special Report 173), Stanislaus County is not prolific in its extractive resources. Sand and gravel deposits presently constitute the only significant extractive resource from a commercial standpoint. Minerals found within Stanislaus County include bementite, braunite, chromite, cinnabar, garnet, gypsum, hausmannite, hydromagnesite, inesite, magnesite, psilomelane, pyrobrsite, and rhodochrosite. However, present economic conditions make commercial extraction of these minerals difficult or impossible.

The CGS has mapped aggregate availability in the state, and no aggregate resources zones have been identified on or within the vicinity of the project. The project area is not located in an area of known or significant mineral resources (CDC 1993).

2.11.2 DISCUSSION

a) Would the project 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?

No impact. No known mineral resource recovery sites or aggregate resource zones are located on the project sites. While project activities include removal of gravel and sediment from Del Puerto Creek and placing it in a spoil pile within Stanislaus County, the project will not result in a loss of availability of mineral resources. Additionally, the project area has not been designated by the CGS as an area of known mineral resources. Therefore, implementation of the proposed project would have a no impact on mineral resources.

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

No impact. There are no mineral recovery sites within or near the project area identified in the Stanislaus County General Plan. The proposed project would not result in impacts related to 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. Therefore, implementation of the project would have no impact to mineral resource recovery zones.

2.12 NOISE

ENVIRONMENTAL 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 in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.12.1 ENVIRONMENTAL SETTING

Existing noise sources in the project area include traffic, agricultural operations, wildlife vocalizations, and wind. The project area is located on DWR property, and is bordered by designated agricultural land and I-5 running adjacent to the west. The area is devoid of densely populated public housing, with a few rural residences located over a mile from the project site. Traffic traveling along I-5 is a constant source of background noise. According to the Stanislaus County General Plan Noise Element, I-5 has an estimated day-night average noise level (Ldn) of 75 A-weighted decibels (dBA) or greater. Acceptable noise levels for agricultural land ranges from 55 to 75 dBA Ldn.

Noise created by the project is temporary, and will only be generated by construction equipment. Construction will occur only on weekdays during normal work hours (7:00am to 5:00pm), and construction equipment would temporarily and not significantly elevate noise levels above the ambient conditions associated with I-5.

2.12.2 DISCUSSION

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less-than-significant impact. Construction noise levels would fluctuate depending on the particular type, number, and duration of usage of the varying equipment. The effects of noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment near the receptor. Construction equipment used during the proposed project would include frontend loader, backhoe, excavator, dozer, grader, skid-steers, low boy truck/trailer, water truck, and dump truck.

Noise from localized point sources (such as construction sites) typically decreases with distance from source to receptor. The nearest residential receptor is approximately 1.1 miles northeast of the limits of construction. The softer, pervious ground, such as the agricultural fields, that exist between the proposed project and the nearest residential receptor act to reduce sound. Due to the terrain and the distance to the nearest residence, this impact would be less than significant.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less-than-significant impact. Construction activities in the project area may result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. Groundborne noise impacts occur due to the vibration of structures. Due to the distance to the nearest structure and the minor nature of the project, groundborne noise impacts would be less than significant.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No impact. Elevated noise would cease at the end of the project activity and would not result in a permanent increase in ambient noise levels in the project area. Therefore, there would be no impact.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-significant impact. Temporary increases in noise levels due to the project are associated with construction activities. Noise levels produced by these sources would be similar

to those created by seasonal agricultural practices in the area, as well as noise from traffic on I-5 to the west. Therefore, temporary or periodic increases in noise levels would be less than significant.

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

No impact. The project site is not located within two miles of a public airport. The Modesto City-County Airport is the nearest public airport and is about 21 miles northeast from the project site. The Stanislaus County Airport Land Use Commission Plan, adopted in 1978 and amended in 2004 identifies the planning boundary for all airports within Stanislaus County. The project area is not within the Modesto City-County Airport land use plan boundaries. A small private airstrip, Patterson Airport, is 1.76 miles from the project area (spoil site). The project area is outside of the planning area boundary for Patterson Airport. The project is located within the Crows Landing Naval Auxiliary Landing Field planning area as stated in the Stanislaus County Airport Land Use Commission Plan. However, Crow's Landing was closed in 1999 by NASA, and is currently abandoned. Because all project activities would be located outside of the Stanislaus County Airport Land Use Commission Plan area, the project would not expose people on- or off-site to excessive noise levels. Therefore, there would be no impact related to airport noise.

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

No impact. As noted in item (e) above, the closest private airport to the proposed project would be the Patterson Airport. The project is outside of the planning area boundary for Patterson Airport, and the project would not affect any airstrip operations. Therefore, the proposed project would not expose people on- or off-site to excessive noise levels, and would have no impact to private airstrip noise.

POPULATION AND HOUSING

ENVIRONMENTAL 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.12.3 ENVIRONMENTAL SETTING

The project is located on DWR-owned property associated with the Aqueduct, and utilizes an access road on adjacent private property designated as agriculture. The area is devoid of densely populated public housing, with a few rural residences located over a mile from the project site.

2.12.4 DISCUSSION

- a) **Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No impact. The proposed project would include the maintenance of Del Puerto Creek to restore channel flow capacity and forestall potential damages to the levee of the adjacent Aqueduct. Project activities will not increase or extend the established infrastructure. Accordingly, the proposed project would not induce population growth in the area, and there would be no impact.

- b) **Would the project displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?**

No impact. The proposed project would not displace any existing housing. Therefore, the proposed project would not result in impacts to housing nor necessitate the construction of replacement housing. No impact would occur.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No impact. The proposed project would not displace any people, or result in the need for replacement housing. No impact would occur.

2.13 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.13.1 ENVIRONMENTAL SETTING

Fire protection services in the unincorporated areas of Stanislaus County are provided by the West Stanislaus County Fire Protection District, with a mutual aid agreement with the Patterson Fire Department. The closest fire station, Station 2, located at 1950 Keystone Pacific Parkway, Patterson, CA is approximately 2.86 miles from the proposed project site. Police services are provided by the Stanislaus County Sheriff's Department (SLAFC 2013). The project is located on DWR property associated with the Aqueduct, and utilizes an access road on adjacent private property designated as agriculture. The paved maintenance road that runs adjacent to the Aqueduct is open for bicycling. However, this paved road is on the opposite side of the Aqueduct from the project area. The project area is closed to the public, and not open for recreational opportunities.

2.13.2 DISCUSSION

- a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?

No impact. The project site would continue to be served by the West Stanislaus County Fire Protection District. The construction of the proposed project would not require additional fire protection facilities and access to the site would be maintained during project activities in accordance with Stanislaus County fire policies and regulations. Therefore, no impacts related to fire protection services would occur as a result of the proposed project.

Police protection?

No impact. The Stanislaus County Sheriff's Department provides law enforcement services to residents in the unincorporated areas of Stanislaus County, including the project area. The activities of the proposed project would not require additional police protection facilities or services. Therefore, no impacts related to police protection services would occur as a result of the proposed project.

Schools?

No impact. The proposed project would not provide new housing or a large number of employment opportunities. Therefore, the proposed project would not generate new students or increase the demand on local school systems, and no impact to school services would occur.

Parks?

No impact. The project is located on DWR property associated with the Aqueduct, and utilizes an access road on adjacent private property designated as agriculture. No parks are located in the immediate vicinity of the project area, and no impacts to parks would occur.

Other public facilities?

No impact. No public facilities exist in the project area that would be affected by the project activities. The road running adjacent to the Aqueduct on the east side can be utilized as a bike path which will remain accessible during construction, but the project area is not accessible to the public. Therefore, there will be no impact to public facilities.

2.14 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Recreation. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.14.1 ENVIRONMENTAL SETTING

The project is located on DWR property associated with the Aqueduct, and utilizes an access road on adjacent private property zoned as agricultural. The paved maintenance road that runs adjacent to the Aqueduct is designated as a portion of the California Aqueduct Bikeway, and is open for bicycling. The San Joaquin Valley section of the bikeway extends 67 miles down the west side of the valley, from Bethany Reservoir (west of Tracy) to the San Luis Reservoir State Recreation Area (west of Los Banos). This section of the bikeway has been designated a National Recreation Trail by the Secretary of the Interior. However, this paved road is on the east side of the Aqueduct. The project area, located on the west side of the Aqueduct, is closed to the public, and not open for recreational opportunities.

2.14.2 DISCUSSION

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?

No impact. The paved maintenance road along the east side of the Aqueduct is open to bicyclists. However, the project involves maintenance activities on DWR-owned property on the west side of the Aqueduct, which is closed to the public, and will not affect any existing recreational facilities or activities. There would be no impact.

b) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No impact. As discussed in topic (a), the proposed project will not impact existing recreational facilities and is not constructing or expanding a recreational facility. There would be no impact.

2.15 TRANSPORTATION/TRAFFIC

ENVIRONMENTAL 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.15.1 ENVIRONMENTAL SETTING

The project area is located on lands associated with the Aqueduct, and is on the west side of the Aqueduct in an area not accessible to the public. All access roads are located on DWR property and an adjacent private property. The project area (and west side of the Aqueduct) is restricted to public access by the use of locked gates. Discussion

- a) Would the project 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?**

No impact. The proposed project would not adversely impact I-5, Del Puerto Canyon Road, or any other local or regional roads in the vicinity of the project site. Haul truck trips would be required to dispose of the removed vegetation and sediment at the designated spoil site located on DWR property. Haul trips would utilize DWR owned access roads, crossing only one public road, Del Puerto Canyon Road. These trips would be staggered through the day during non-peak commute hours. All construction equipment would be transported to the project site once and would be left in the staging area after each workday. Thus, the impact on the surrounding circulation system would be minimal.

Public transit does not exist in the immediate vicinity of the project site. While bicycle and pedestrian facilities exist in areas surrounding the project site, the proposed project would not affect public use of any of these facilities. Because worker commute trips would be minor during the project period, truck trips would be spread out throughout the workday, and no road closures or obstructions to standard roadway flow (including bicyclists and pedestrians) would be part of the proposed project, no adverse impact would occur on the circulation system in the project vicinity. There would be no impact.

- b) Would the project 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?**

No impact. As noted in item (a) above, the proposed project would not adversely impact any local or regional roads in the project vicinity. The equipment would be stored within the staging areas and would be hauled in and out before and after the project components are completed. Haul trips would utilize DWR owned access roads, crossing only one public road, Del Puerto Canyon Road. These trips would be staggered through the day during non-peak commute hours, and would not adversely impact the surrounding circulation system. Therefore, traffic from the proposed project would not be expected to increase substantially compared to existing conditions. There would be no impact.

- c) Would the project 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?**

No impact. The proposed project would not result in a change in air traffic patterns or result in any air safety risks. Construction of the proposed project would not include any aircrafts or develop any structures that would interfere with air traffic in the vicinity of the project. There would be no impact.

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

No impact. The proposed project would not include any change to roadway design or incompatible uses in the project vicinity. The proposed project will improve access and create turnarounds for equipment on DWR owned access roads to maintain this portion of Del Puerto Creek. Improved access roads would not be accessible to the public and do not create hazards due to their design. There would be no impact.

e) Would the project result in inadequate emergency access?

No impact. Construction equipment that would be used for the proposed project, once transported to the project site, would not interfere with any emergency access on I-5, Del Puerto Canyon Road, or any other local or regional roads in the vicinity of the project site. The proposed project would not include any road or lane closures. There would be no impact.

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

No impact. As noted in item (a) above, public transit does not exist in the immediate vicinity of the project site, but bicycle and pedestrian facilities do. Public access along the California Aqueduct by pedestrians and bicyclists would not be impacted by the project, as the project site is outside of the publicly accessible areas of the Aqueduct. Thus, the proposed project would not conflict with any adopted policies, plans, or programs for public transit, bicycle, and pedestrian facilities, and there would be no impact.

2.16 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.16.1 ENVIRONMENTAL SETTING

The project site does not currently generate wastewater or require the use of a wastewater treatment facility. No facilities that would produce wastewater exist within the project area. Del Puerto Creek channels water from the Diablo Mountain Range into the San Joaquin River acting as a natural runoff feature; however, no stormwater runoff facilities or water conveyance facilities are present within the project area.

2.16.2 DISCUSSION

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The proposed project does not include the addition of any restroom facilities. No modification to a wastewater treatment facility's current wastewater discharges would occur. No impact to wastewater treatment requirements of the Regional Water Quality Control Board would occur.

b) Would the project 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?

No impact. The proposed project would not result in the need to provide water or wastewater facilities, or require the construction of new or expanded water or wastewater treatment facilities and no impacts would occur.

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

Less than significant impact. The proposed project would not require the construction of new storm water drainage facilities or the expansion of existing facilities. The improvements to the rocked drainage feature within the project area would capture and convey stormwater runoff from the Aqueduct more efficiently. However, project activities at the site would not contribute substantial additional sources of polluted runoff during the maintenance activities. Because there is no substantial increase in runoff and the potential for the release of pollutants is minor, no new storm water drainage facilities would be required. Impacts to stormwater drainage facilities would be less than significant.

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No impact. The project activities would utilize existing water supplies and would not increase the current water use at the project site. Accordingly, the project would not require new or expanded entitlement and no impacts would occur.

e) Would the project result in a determination by the wastewater treatment provider that 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?

No impact. As noted in (a) above, the proposed project would not generate wastewater. There would be no impact.

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

No impact. The proposed project will not utilize a landfill. Vegetation removed from the drainage will be disposed of at a spoil site on DWR property. There would be no impact.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

No impact. The vegetation and sediment removed from the project will be transported via dump truck to a nearby designated spoil site. Because the proposed project would comply with all applicable federal, state, and local regulations, no impact would occur.

2.17 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” meant that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of the other current projects and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.17.1 DISCUSSION

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

Less than significant with mitigation incorporated. Implementation of the mitigation measures recommended in this Initial Study would ensure that the construction and operation of the proposed project would not substantially degrade the quality of the environment; reduce the habitat, population, or range of a plant or animal species; or eliminate important examples of California history or prehistory. Section 2.3, Air Quality, includes a mitigation measure to reduce construction-related emissions from off-road equipment and heavy-duty vehicles. Section 3.4, Biological Resources, includes mitigation measures to avoid and minimize impacts to wildlife, special status plants, western spadefoot, special-status and migratory birds, San Joaquin kit fox, riparian habitat, and potentially jurisdictional waters of the United States. Section 2.5, Cultural Resources, includes mitigation measures in the event that unanticipated archeological or

paleontological resources and/or human remains are identified in the project area during construction. Section 2.6, Hazards and Hazardous Materials, includes mitigation measures in the event that emergency response or spill control is required. Section 2.7, Hydrology and Water Quality, utilizes mitigation measures from Section 2.3 and 2.4 to minimize impacts to water quality. With the implementation of the above listed Mitigation Measures, impacts would be less-than-significant with mitigation incorporated.

b) Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” meant that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of the other current projects and the effects of probable future projects)?

No impact. The impacts of the proposed project are individually limited and not cumulatively considerable. All environmental impacts that could occur as a result of the proposed project would be reduced to a less than significant level through implementation of the mitigation measures recommended in this Initial Study and, when viewed in conjunction with other closely related past, present or reasonably foreseeable future projects, there would be no impact.

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

No impact. As described in this Initial Study, the implementation of the proposed project could result in temporary air quality impacts during the construction period. Implementation of mitigation measure AQ-1 and BMPs discussed in Section 2.7 in this Initial Study would ensure that the proposed project would not result in environmental effects that would cause substantial adverse effects on human beings. Therefore, no impact would occur.

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Appendix A: Special-Status Species with Potential to Occur within the Project Area

Common Name	Scientific Name	Federal/ State/ Other	Habitat/Range	Effect Determination	Reason for Effect Determination
INVERTEBRATES					
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT/-/-	Elderberry shrubs in riparian and oak savanna habitats	No effect	The project area does not provide suitable habitat for this species. No host plants occur within the project area.
FISH					
San Joaquin Roach	<i>Lavinia symmetricus</i> ssp. 1	-/SSC/-	A subspecies of California roach. Typically found in tributaries to the San Joaquin River from the Cosumnes River south.	No effect	The project area does not contain suitable aquatic habitat to support this species.
Steelhead – Central Valley DPS	<i>Oncorhynchus mykiss irideus</i>	FT/-/-	Central Valley rivers and streams, Delta, SF Bay estuary. Spawning habitat consists of gravel substrates free of excessive silt.	No effect	The project area does not contain suitable aquatic habitat to support this species.
Sacramento Splittail	<i>Pogonichthys macrolepidotus</i>	-/SSC/-	Primarily freshwater but can tolerate moderate salty water. Found primarily in slow-moving, marshy sections of rivers and sloughs.	No effect	The project area does not contain suitable aquatic habitat for this species.
AMPHIBIANS					
California tiger salamander	<i>Ambystoma californiense</i>	FT/ST/-	Grasslands and oak savannas with vernal pools or seasonal ponds.	No effect	No critical habitat within the project area and no documented occurrences within 5 miles. No suitable breeding habitat is present within the project area or within 2 kilometers of the project area.
Foothill yellow-legged frog	<i>Rana boylei</i>	-/SSC/-	Permanently inundated rocky streams and rivers in forest, chaparral, and woodlands.	No effect	No suitable aquatic habitat is present within the project area.

Appendix A: Special-Status Species with Potential to Occur within the Project Area

California red-legged frog	<i>Rana draytonii</i>	FT/SSC/-	Still water in streams and ponds with deep pools and emergent vegetation in grasslands, woodlands, and forests.	No effect	No critical habitat within the project area, available habitat is poor quality; no emergent vegetation or suitable aquatic habitat is present and work will take place when the area is dry. This species is not known or likely to occur in the project area.
Western spadefoot	<i>Spea hammondi</i>	-/SSC/-	Grasslands, open chaparral, and woodlands with vernal pools or other ephemeral breeding habitat.	Not likely to adversely affect.	The habitat within the project area is of poor quality. However, this species is known to occur upstream in the Del Puerto Creek Canyon and may utilize the project area for upland and dispersal habitat.
REPTILES					
Western pond turtle	<i>Emys marmorata</i>	-/SSC/-	Ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with abundant vegetation in woodland, forest, and grassland.	No effect	The project area does not provide suitable aquatic habitat for this species. The nearest suitable aquatic habitat is located approximately 0.5 miles downstream of the project area, outside the area of potential impact.
San Joaquin whipsnake	<i>Masticophis flagellum ruddocki</i>	-/SSC/-	Open, dry, treeless areas, including grassland and saltbush scrub. Often utilizes rodent burrows and shaded areas under vegetation for refuge.	Not likely to adversely affect.	There is potentially suitable habitat for this species within the project area.
BIRDS					
Tricolored Blackbird (nesting colony)	<i>Agelaius tricolor</i>	-/SSC/-	Nest in a variety of substrates with access to open water. Foraging occurs within nearby in grasslands, pastures, and wetlands.	No effect	Nesting habitat is not present within the project area.

Appendix A: Special-Status Species with Potential to Occur within the Project Area

Golden Eagle (nesting & wintering)	<i>Aquila chrysaetos</i>	-/FP/-	Forests, canyons, shrub lands, grasslands, and oak woodlands	No effect	No nesting habitat present within the project area.
Burrowing Owl (burrow sites & some wintering sites)	<i>Athene cunicularia</i>	-/SSC/-	Nests in burrows in the ground within grasslands, deserts, and scrublands characterized by low-growing vegetation and suitable burrows.	Not likely to adversely affect	The project area provides potentially suitable habitat for this species; however, no suitable burrows were observed within the project area.
Swainson's Hawk (nesting)	<i>Buteo swainsoni</i>	-/ST/-	Nest peripheral to riparian systems or lone trees in agricultural fields or along roadsides when adjacent to suitable foraging habitat such as grasslands or agricultural fields, particularly alfalfa	Not likely to adversely affect.	No suitable nest trees within the project area, but potentially suitable nesting trees occur north of the project area. Grasslands within the project area provide potentially suitable foraging habitat. No Swainson's Hawks were observed during surveys.
California Horned Lark	<i>Eremophila alpestris actia</i>	-/WL	Utilizes open areas dominated by sparse, low herbaceous vegetation or low shrubs. Ground-nester.	Not likely to adversely affect.	The project area provides potentially suitable breeding habitat for this species.
Prairie Falcon	<i>Falco mexicanus</i>	-/WL	Breed in open landscapes with cliffs for nest sites. Feed on birds in a variety of habitats.	No effect.	The project area does not provide suitable nesting habitat for this species.
Bald Eagle	<i>Haliaeetus leucocephalus</i>	DL/SE/FP	Breeding habitat commonly includes areas within 4 kilometers of open water bodies which provide food sources. Nests in tall trees or cliffs.	No effect.	The project area does not provide suitable habitat for this species.
Loggerhead Shrike (nesting)	<i>Lanius ludovicianus</i>	-/SSC/-	Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Primarily breeds in shrubland or open woodland with openings.	No effect.	The project area provides only marginally suitable nesting habitat for this species. Sagebrush shrubs within the project area are small and sparse and do not provide optimal breeding habitat.

Appendix A: Special-Status Species with Potential to Occur within the Project Area

Suisun Song Sparrow	<i>Melospiza melodia maxillaris</i>	-/SSC/-	Year-round range confined to tidal salt and brackish marshes fringing the Carquinez Strait and Suisun Bay east to Antioch, at the confluence of the San Joaquin and Sacramento rivers.	No effect	The project area is outside the range of this species.
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	FE/SE/-	Utilizes coastal scrub, riparian, and other woodland habitats during migrations. Nesting occurs within willows, mulefat, California wild rose, poison oak, and cottonwoods.	No effect.	The project area does not provide suitable nesting habitat for this species. The project is outside the range of this species.
MAMMALS					
Riparian brush rabbit	<i>Sylvilagus bachmani riparius</i>	FE/SE/-	Riparian oak forests with dense understory along the San Joaquin River and its tributaries.	No effect.	The project area does not provide suitable riparian habitat for this species.
American badger	<i>Taxidea taxus</i>	-/SSC/-	Variety of open, arid habitats, most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub	Not likely to adversely affect.	Available habitat is poor quality, and species is not likely to occur in the project area. No suitable dens occur within work areas.
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE/ST/-	Variety of habitats, primarily grasslands and scrublands, with loose-textured soil	Not likely to adversely affect.	The project area provides potentially suitable denning habitat. One large den, approximately 1.25 feet wide at the opening, was observed within the project area. Tracks that appear to belong to coyote were noted at the entrance to this den.
PLANTS					

Appendix A: Special-Status Species with Potential to Occur within the Project Area

Santa Clara thorn-mint	<i>Acanthomintha lanceolata</i>	-/-/4.2	Annual herb found in rocky, often serpentinite soil in chaparral, cismontane woodland, and coastal scrub from 80 to 1,200 meters in elevation. Blooms from March through June.	No effect.	The project area does not provide suitable soils or habitat for this species.
Red-flowered bird's-foot-trefoil	<i>Acmispon rubriflorus</i>	-/-/1B.1	Annual herb found in cismontane woodland and valley and foothill grassland from 200 to 425 meters in elevation. Blooms from April through June.	No effect.	The project area is outside the elevation range of this species.
Sharsmith's onion	<i>Allium sharsmithiae</i>	-/-/1B.3	Perennial bulbiferous herb found in serpentinite, rocky soil in chaparral and cismontane woodland from 400 to 1,200 meters in elevation. Blooms from March through May.	No effect.	The project area does not provide suitable habitat and is outside the elevation range for this species.
Alkali milk-vetch	<i>Astragalus tener</i> var. <i>tener</i>	-/-/1B.2	Annual herb found in alkaline soils on playas, valley and foothill grasslands (adobe clay), and vernal pools from 1 to 60 meters in elevation. Blooms from March through June.	No effect.	The project area does not provide suitable soils or vernal pool habitat for this species.
Heartscale	<i>Atriplex cordulata</i> var. <i>cordulata</i>	-/-/1B.2	Annual herb found in saline or alkaline soils in chenopod scrub, meadows and seeps, and valley and foothill grasslands (sandy) from 0 to 560 meters in elevation. Blooms from April through October.	No effect.	The project area does not provide suitable soils or habitat for this species.
Lesser saltscale	<i>Atriplex minuscula</i>	-/-/1B.1	Annual herb found on alkaline or sandy soil in chenopod scrub, playas, and valley and foothill grassland from 15 to 200 meters in elevation. Blooms from May through October.	Not likely to adversely affect	Available habitat is poor quality, and species is not known or likely to occur in the project area.
Vernal pool smallscale	<i>Atriplex persistens</i>	-/-/1B.2	Annual herb found in alkaline soils of vernal pools from 10 to 115 meters in elevation. Blooms from June through October.	No effect.	The project area does not provide suitable vernal pool habitat for this species.

Appendix A: Special-Status Species with Potential to Occur within the Project Area

Big tarplant	<i>Blepharizonia plumosa</i>	-/-1B.1	Annual herb usually found in clay soils in valley and foothill grassland from 30 to 505 meters in elevation. Blooms from July through October.	Not likely to adversely affect	Available habitat is poor quality, and species is not known or likely to occur in the project area.
Round-leaved filaree	<i>California macrophylla</i>	-/-1B.1	Annual herb found in clay soils in cismontane woodland and valley and foothill grassland from 15 to 1,200 meters in elevation. Blooms from March through May.	Not likely to adversely affect	Available habitat is poor quality, and species is not known or likely to occur in the project area.
Santa Cruz Mountains pussypaws	<i>Calyptidium parryi</i> var. <i>hesseae</i>	-/-1B.1	Annual herb found in sandy or gravelly openings in chaparral and cismontane woodland from 305 to 1,530 meters in elevation.	No effect	The project area is outside the known elevation range and does not provide suitable habitat for this species.
Chaparral harebell	<i>Campanula exigua</i>	-/-1B.2	Annual herb found in rocky, usually serpentinite soil in chaparral from 275 to 1,250 meters in elevation. Blooms from May through June.	No effect.	The project area does not provide suitable soil and is outside the elevation range for this species.
Lemmon's jewelflower	<i>Caulanthus lemmonii</i>	-/-1B.2	Annual herb found in pinyon and juniper woodland, and valley and foothill grassland from 80 to 1,220 meters in elevation. Blooms from March through May.	Not likely to adversely affect	Available habitat is poor quality, and species is not known or likely to occur in the project area.
Brewer's clarkia	<i>Clarkia breweri</i>	-/-4.2	Annual herb often found on serpentinite soils in chaparral, cismontane woodland, and coastal scrub from 215 to 1,115 meters in elevation. Blooms from April through June.	No effect.	The project area does not provide suitable soils or habitat for this species.
Serpentine collomia	<i>Collomia diversifolia</i>	-/-4.3	Annual herb found in serpentinite, rocky or gravelly soil in chaparral and cismontane woodland from 300 to 600 meters in elevation. Blooms from May through June.	No effect	The project area is outside the elevation range and does not provide suitable soils or habitat for this species.
Small-flowered morning-glory	<i>Convolvulus simulans</i>	-/-4.2	Annual herb found in clay and serpentinite seeps in chaparral, coastal scrub, and valley and foothill grassland from 30 to 700 meters in elevation. Blooms from March through July.	No effect	The project area does not contain suitable soils or provide suitable habitat for this species.

Appendix A: Special-Status Species with Potential to Occur within the Project Area

Tracy's eriastrum	<i>Eriastrum tracyi</i>	-/-1B.2	Annual herb found in chaparral and cismontane woodland from 315 to 1,645 meters in elevation. Blooms from May through July.	No effect	The project area is outside the elevation range and does not provide suitable habitat for this species.
Delta button-celery	<i>Eryngium racemosum</i>	-/SE/1B.1	Annual/Perennial herb found in vernal mesic clay depressions in riparian scrub from 3 to 30 meters in elevation. Blooms from June through October.	No effect	The project area does not provide suitably mesic habitat for this species.
Spiny-sepaled button-celery	<i>Eryngium spinosepalum</i>	-/-1B.2	Annual/perennial herb found in valley and foothill grassland and vernal pools from 80 to 620 meters in elevation. Blooms from April through June.	No effect	The project area does not provide suitably mesic habitat for this species.
Diamond-petaled California poppy	<i>Eschscholzia rhombipetala</i>	-/-1B.1	Annual herb found in alkaline, clay valley and foothill grassland from 0 to 975 meters in elevation. Blooms from March through April.	Not likely to adversely affect	Available habitat is poor quality, and species is not known or likely to occur in the project area.
Tehama County western flax	<i>Hesperolinon tehamense</i>	-/-1B.3	Annual herb found in serpentinite soils in chaparral and cismontane woodland from 100 to 1,250 meters in elevation. Blooms from May through July.	No effect.	The project area does not contain suitable soils or habitat for this species.
Mt. Hamilton coreopsis	<i>Leptosyne hamiltonii</i>	-/-1B.2	Annual herb found in rocky soils in cismontane woodland from 550 to 1,300 meters in elevation. Blooms from March through May.	No effect	The project area does not contain rocky soils in cismontane woodland habitat suitable for this species.
Showy golden madia	<i>Madia radiata</i>	-/-1B.1	Annual herb found in cismontane woodland, and valley and foothill grassland from 25 to 1,215 meters in elevation. Blooms from March through May.	Not likely to adversely affect	Available habitat is of poor quality, and species is not known or likely to occur in the project area.
Hall's bush-mallow	<i>Malacothamnus hallii</i>	-/-1B.2	Perennial evergreen shrub found in chaparral and coastal scrub from 10 to 760 meters in elevation. Blooms from May through October.	No effect.	The project area does not provide suitable chaparral or scrub habitat for this species.

Appendix A: Special-Status Species with Potential to Occur within the Project Area

Mt. Diablo phacelia	<i>Phacelia phacelioides</i>	-/-/1B.2	Annual herb found in rocky soils in chaparral and cismontane woodland from 500 to 1,370 meters in elevation. Blooms from April through May.	No effect.	The project area is outside the elevation range and does not provide suitable rocky soils or habitat for this species.
Prairie wedge grass	<i>Sphenopholis obtusata</i>	-/-/2B.1	Perennial herb found in mesic conditions in cismontane woodland, and meadows and seeps from 300 to 2,000 meters in elevation. Blooms from April through July.	No effect.	The project area does not provide suitably mesic habitat for this species.

***Status Codes:**

Federal

FE = listed as Endangered under the federal Endangered Species Act

FT = listed as Threatened under the federal Endangered Species Act

FC = candidate for listing under the federal Endangered Species Act

State

SE = listed as Endangered under the California Endangered Species Act

ST = listed as Threatened under the California Endangered Species Act

SSC = listed as Species of Special Concern under the California Endangered Species Act

FP = listed as Fully Protected under the California Fish and Game Code

WL = Watch List species that no longer merit SSC status but for which there is still concern and a need to for additional information to clarify status

California Rare Plant Rank (CRPR)

1A = ranked as presumed extinct in California by the CNPS

1B.1 = ranked as rare, threatened, or endangered in California and elsewhere (seriously threatened in CA) by the CNPS

1B.2 = ranked as rare, threatened, or endangered in California and elsewhere (fairly threatened in CA) by the CNPS

2.1 = ranked as rare, threatened, or endangered in California, but more common elsewhere (seriously threatened in CA) by the CNPS

2.2 = ranked as rare, threatened, or endangered in California, but more common elsewhere (fairly threatened in CA) by the CNPS

3.1 = ranked as plants requiring more information in California that are under review (seriously threatened in CA) by the CNPS

4.2 = ranked as plants having a limited distribution within California that should be watched (fairly threatened in CA) by the CNPS

**Appendix B:
Cultural Report & Cultural Resources Update Memorandum**



Del Puerto Creek Sediment Removal Project

April 12, 2013



Prepared By:
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California Department of Water Resources
Division of Environmental Services
Environmental Compliance and Evaluation Branch

Department of Water Resources
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I. PROJECT DESCRIPTION AND LOCATION	
County:	Name of Project:
Stanislaus	Del Puerto Creek Sediment Removal Project
General Project Description	
<p>The California Department of Water Resources (DWR) Delta Field Division is proposing to remove an estimated 500 cubic yards of sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, repair a rocked drain, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek and the California Aqueduct (CA) (on the western side), and the spoils site that is located southeast of the project at post mile 41.5 on the eastern edge of the CA (Figure 1). The footprint, including sediment removal, bank stabilization, repairs to existing rocked drainages, access road improvements, and spoils disposal site, covers approximately 1.2 acres.</p>	
Project Location	
<p>The project is located just northwest of the town of Patterson, California in Stanislaus County. The sediment removal APE is within the Patterson 7.5' United States Geological Survey (USGS) topographic quadrangle within Section 21, Township 5S, Range 7E and the spoils site APE is located within Section 2, Township 6S, Range 7E (Figures 2 and 3).</p>	
Applicable Cultural Resource Laws	
<p>As the U.S. Army Corps of Engineers may be issuing permits for the proposed project, this document is intended to satisfy the requirements of Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR 800). This report also satisfies the requirements of Section 21083.2 of the California Environmental Quality Act (CEQA) and Section 15064.5 of the CEQA Guidelines. In addition, California Public Resources Code (PRC) Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria under Section 5024.1, which established the California Register of Historical Resources.</p>	
Horizontal and Vertical APE	
<p>The sediment removal location APE is located east of the Interstate 5 corridor and west of the CA (Figure 2) on Del Puerto Creek. The spoils pile APE is located on top of the eastern levee of the CA approximately four miles to the southeast (Figure 3). The road at the project site will be re-established for this project (0.614 acres) by grading and placing A/B on the road surface along its entire length. The access ramp (0.133 acres) will also be graded and A/B placed as necessary. The sediment removal will occur within 200 feet from the end of the cement culvert structure, across the width of the channel (approximately 40 feet). The affected area within the channel itself is approximately 0.284 acres. The vertical APE will include four feet up the bank on either side, and the channel will be excavated to a level even with the base of the concrete structure.</p>	
II. BACKGROUND	
a. Present Environment	
<p>The study area lies at the intersection of the San Joaquin Valley floor and the arid eastern foot of the</p>	

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Diablo Range at the mouth of Del Puerto Canyon. Del Puerto Creek is a seasonally wet stream channel that flows to the San Joaquin River during the rainy season between late fall and early spring. The San Joaquin River itself originates along the crest of the high Sierra Nevada, between Yosemite and Kings Canyon national parks. The western side of the San Joaquin River is considerably drier than the eastern side and is dominated by grassland vegetation. Much of the present vegetation is composed of introduced grasses and forbs. The creek channel is seasonally dry and vegetation consists of California sagebrush (*Artemisia californica*), gum plant (*Grindelia* sp.), alkali heliotrope (*Heliotropium curassavicum*).

b. Archaeological Background

History of Archaeological Investigations

The basic framework for the interpretation of archaeological data from the Central Valley is based by excavations done in the early decades of the 20th century. The researchers relied primarily upon stratigraphic association and the serration of burial lots from mound sites in the Delta region of the Central Valley (Lillard, Heizer, and Fenenga 1939). This analysis was accomplished without modern data collection methods that emphasize radiocarbon dating, faunal and archaeobotanical analyses, and fine mesh screening. However, the burial lots provided enough information to divide the prehistoric period into an Early, Middle, and Late Delta cultural sequence, but lacked actual age determinations. Beardsley (1954), also without the aid of absolute dating techniques, integrated both the coastal and Delta patterns to formulate his Central California Taxonomic System (CCTS). Later, Ragir (1972) revised the CCTS by integrating radiocarbon dating methods along with chert and projectile point typologies. She was then able to demonstrate the antiquity of certain sites.

Although the CCTS did provide a useful framework, it was a static system that did not allow the depiction of gradual change over time, regional variability, or cultural patterns, such as settlement and economic systems or social organization. These concepts began to take on more importance, possibly because refined dating techniques and the introduction of modern processual methodology made understanding these complex issues a more attainable goal. The work of James Bennyhoff and Dave Fredrickson (1973, 1974) moved away from the static cultural horizon concept and toward thinking about prehistoric human behavior as a set of patterns separate from temporal implications. Fredrickson (1973) characterized a pattern as an adaptive mode extending across one or more regions, characterized by technology, economic modes, and aspects of social organization. He then was able to assign chronological units to the various patterns which he termed the Windmill Pattern (Early Horizon), the Berkeley Pattern (Middle Horizon), and the Augustine Pattern (Late Horizon) (Morato 1984). These were categorized by not only artifact types, but by behavioral criteria as well (Fredrickson 1973).

Regional Archaeological Patterns

While the Bay-Delta area had been the subject of much archaeological research, the western edge of the San Joaquin Valley had not been the focus of California archaeological studies until the Bureau of Reclamation and DWR began reservoir projects in the area. These projects occurred in two main phases, salvage archaeology for San Luis, Los Banos, and Little Panoche Reservoirs in the 1960's, and later reconnaissance surveys for the Los Banos Grandes reservoir alternatives studying suitable locations for reservoirs in the 1990's (Bell et al 1993; Hines et al. 1992, 1993; Mikkelsen and Hildebrandt 1990; Orestima Res. unpublished draft n.d.). Four of the five reconnaissance surveys for the five alternative sites are located in the western San Joaquin Valley in Stanislaus and Merced Counties.

The earlier phase of salvage work for the reservoir projects was instrumental in creating a cultural chronological sequence for the northwestern San Joaquin Valley. Several substantial sites in reservoir

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footprints were the focus of intensive excavations (Nissley 1975; Olsen and Payen 1968, 1969, 1983; Pritchard 1970 and 1983). Olsen and Payen (1969) postulated estimated dates for the prehistoric cultural sequence of the local area that includes the Positas, Pacheco, Gonzaga, and Panoche complexes. The earliest complex is not well dated, but the local sequence provides an archaeological framework from the later part of the Middle Holocene (7700-3800 BP) through the Late Holocene (3800-150 BP).

Terminal Pleistocene / Early Holocene (13,500-7,700 cal BP)

Sites dating to these time periods may exist in the project area, buried deeply under Quaternary alluvial sediment, but none have been found to date. These earliest years are not well represented archaeologically throughout California and are referred to, in general, as the Paleoindian Period. Many of the earliest Paleoindian occupations in California are found in the desert regions where the landscape has not been covered by Quaternary alluviation. These sites are usually surface phenomena characterized by the presence of weathered fluted or basally-thinned spear or atlatl points, often referred to as Clovis or Great Basin Concave Base (Basgall 2005a, 2005b; Davis 1978; Moratto 1984). They have been found in association with faunal remains of extinct species, such as mammoth, camel, and horse; however, whether the association is due in fact to large game hunting or merely accidental is debatable (Basgall 2005a, 2005b; Davis 1978; Fenenga 1992). Flaked stone crescents are also very old and are found around the margins of Pleistocene lakes in the same or similar contexts as the basally-thinned points. Some of the most well-known Paleoindian sites occur in around the shores of Pleistocene Lake Tulare in Kings County (CA-KIN-32) and Pleistocene Lake Buena Vista (Wedel 1941). Direct dating of these sites has been very limited and includes a few dates on human bone and some obsidian hydration readings. However, these sites are estimated to be as much as 11,500 years old (Rosenthal et al. 2007).

Another ancient Paleoindian pattern that may overlap, but is generally thought to post-date the concave base and basally thinned points is the Stemmed-Point Tradition. Stemmed point sites are often located along the shores of Pleistocene lakes like basally thinned/concave base points; however, they have a much wider distribution and are not found in association extinct fauna. Both of these ancient traditions lack groundstone artifacts which are indicative of plant processing. The abundance of flaked stone items and the absence of plant processing artifacts lead to the interpretation that these early cultures were hunting oriented. Vegetal foods were almost certainly consumed, but the lack of preservation of dietary constituents, both faunal and botanical, force archaeologists to rely on inference based on tool types. Long distance travel is also characteristic of these early cultures. This is evidenced by the presence and variety of flaked stone tools whose geologic origins are quite distant to the site locations (Sutton et al. 2007).

Middle Holocene to Late Holocene (7,700 -150 cal BP)

It is thought that the Paleoindian cultures of the preceding period began to break up into smaller, relatively more sedentary local manifestations and regional differentiation in tool types increased. This period is not well represented in the archaeological record. This may be due to the rapid sedimentation that was taking place during this time that caused much of California and especially the Central Valley to be filled with Quaternary alluvial deposits, burying many older sites beneath several deep layers of sediment. As sedimentation slowed and sea level stabilized, the landscape began to look much the way it does now. Thus, there is a much more robust archaeological record for the end of the Middle Holocene through the Late Holocene Periods. This is generally the time period that is broken up into Early, Middle, and Late Periods in the cultural chronologies (Lillard, Heizer, and Fenenga 1939; Beardsley 1954; Ragir 1972; Fredrickson 1973, 1974).

Distinctive lowland and upland adaptive patterns emerge after around 4,500 cal BP. These are

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characterized by atlatl points that on average are smaller and lighter than the Paleo-Indian forms. Groundstone is also found at these sites in the form of handstones and milling slabs indicating that the processing of small seeds is important enough for use of specialized tools. Mortars and pestles for the processing of large nuts, most especially acorns begin to emerge with the development of acorn focused economies. Fishing is also important as seen in bone and shell fish hooks, net sinkers, and harpoons. Territorial areas shrink and settlements become increasingly sedentary. Trade alliances with neighboring groups become important as mobility patterns decreased.

After 3,500 cal BP, sites with sophisticated material culture and westward oriented, extended burials—referred to as the Windmill Pattern—appeared within the Central Valley. These include burials within formal cemeteries, often in mounds and regularly accompanied by grave associated goods. This period is not well represented in the project area. Olsen and Payen (1969) refer to this period as the Positas Complex, but it is not a well-developed pattern based primarily on a component from one site.

Positas Complex (ca. 5,300–4,600 BP)

This cultural manifestation represents the earliest period for which archaeological evidence has been noted in the project area. In general, little is known of this period, and its relationship to earlier and later manifestations is somewhat unclear (Olsen and Payen 1969). However, by this time, early Native Americans appear to have adopted a more settled lifeway and the lower cultural deposits from CA-Mer-94 on the San Luis Creek suggest that extensive trade networks had already been established by this time. Obsidian from distant sources and spire-topped *Olivella* beads from the coast are found at sites dating to this period. Other artifacts characteristic of this period include small shaped mortars, short cylindrical pestles, milling stones, and a wide range of flaked stone tools.

Pacheco Complex (ca. 4,600 BP–1,700 BP)

This period, best represented by a component at CA-Mer-94 (Olsen and Payen 1969), has been divided into two phases based primarily on tool and shell bead forms. Pacheco B (before about 3,600 BP) and Pacheco A occurring after ca. 3,600 BP. Pacheco B is characterized by leaf-shaped bifaces, rectangular *Haliotis* (abalone shell) ornaments, and thick rectangular *Olivella* beads. Pacheco A, occurring after ca. 3,600 BP, includes a much wider variety of *Olivella* and *Haliotis* bead and ornament forms, perforated canine teeth, bone tools and whistles, and large stemmed and side-notched points. Abundant milling stones, mortars, and pestles indicate an increased reliance on gathered seed and nut foods. Evidence for trade also increases during this time, with the bone and shell industries bearing marked similarities with those noted in the Delta "Middle Horizon" and traits from western and southern assemblages (Moratto 1984:192; Olsen and Payen 1969).

Gonzaga Complex (ca. 1,700–1,000 BP)

Noted from several sites (CA-Mer-3, CA-MER-14, and CA-Mer-94), this cultural manifestation has been noted throughout the west side of the valley (Moratto 1984:192). Distinctive features include a mix of extended and flexed human burials, bowl mortars, and shaped pestles, squared and tapered-stem projectile points, a modicum of bone awls (indicative of coiled basketry), grass saws, distinctive *Haliotis* ornaments and thin rectangular, split-punched, and oval *Olivella* beads. Bone and shell artifacts closely resemble those from the Delta "Late Horizon," Phase I (Moratto 1984:192; Olsen and Payen 1969).

Panoche Complex (ca. 500–150 BP)

Olsen and Payen (1969) posited a 500 year period of abandonment of the area, and then resettlement. It has been speculated that the abandonment was in response to a climatic or environmental shift; however, in several cases, proposed periods of abandonment later proved to be a shift in settlement practices. Settlement shifts may be made in response to either environmental or social factors.

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The late prehistoric to early historic Panoche complex similar to the "Late Horizon" Phase II of the Bay/Delta region, has been documented at a number of sites in western San Joaquin Valley (Breschini et al. 1983:79). Large circular structures occur frequently, along with flexed burials and primary and secondary cremations, few milling stones, varied mortars and pestles, bone awls, saws, whistles, tubes, small side-notched arrow points, clamshell disk beads, *Haliotis* epidermis disk beads, and *Olivella* lipped, side ground, and rough disc beads (Moratto 1984; Olsen and Payen 1969).

Although some proto-historic and early historic materials have been excavated in area sites, much of the Diablo Range was abandoned by Native Americans as many were either captured to work at the Spanish Mission San Juan Bautista, died fighting the Spanish, or fled to the east (Latta 1949; Olsen and Payen 1968). With the Spanish Mission on the west side of the hills and the El Camino Viejo on the east, the project area was under heavy Spanish influence, making it an undesirable place to live for local Native Americans.

c. Ethnographic Setting

The project area lies within territory assigned to the Nopchinchi subdivision of the Northern Valley Yokuts (Wallace 1978). Elsewhere in their range, the Yokuts are well recorded (Gayton 1948; Latta 1949), but due to a sequence of historic era transformations including the introduction of diseases, missionization, and the Gold Rush, this region of California remains little understood. The Northern Valley Yokuts territory ranged from Bear Creek in the north to Fresno in the south. In the east, their boundary extended to the foothills of the Sierra Nevada, and to the crest of the Diablo Range in the west (Wallace 1978). The Nopchinchi subdivision lies largely on the west side of the San Joaquin River.

It is thought that the Northern Valley Yokuts' political organization was built upon tribelets consisting of approximately 300 individuals led by a headman. Northern Valley Yokuts subsistence was more dependent on acorn and salmon than the Yokuts to the south (Wallace 1978) as those resources were more abundant in the north. The Yokuts greatly relied upon fishing, which is not surprising given their close proximity to the San Joaquin River. Salmon, sturgeon, perch, western suckers, and Sacramento pike were some of the sought after species. It is presumed that they also took advantage of the abundant water fowl and possibly larger game such as antelope and elk; however, there is no indication in the written record that these resources were utilized. In addition, plant resources such as acorns, tule roots, and seeds were eaten (Wallace 1978).

Material culture is known primarily from archaeological contexts but closely parallels that of the Central California interaction sphere in general. Structures consisted of small round or oval (25 to 40 feet across), lightly built dwellings that were covered with woven tule mats. Archaeological remnants of these structures reveal hard packed dirt floors excavated to two feet below ground surface level. They appear to be single family dwellings. Besides the more common house structures, there were also sweathouses and ceremonial assembly chambers, both much larger and rarer than the average dwelling. Technology consisted of woven mats, basketry, nets, and cordage, stone pestles, handstones, millingslabs, bowl, hopper and bedrock mortars, as well as stone, bone, and antler tools of many kinds. Flaked stone tools were made from a variety of lithic types such as chert, jasper, chalcedony, and obsidian (Wallace 1978). Lithic material is in short supply in the valley and consisted mainly of sandstone and basalt formations on the western edge of the valley. Steatite, chert, and obsidian could be obtained through the east-west trade networks along with marine shell from Coastal tribes (Bethard and Basgall 2000). Steatite was fashioned into vessels, pipes, ear spools, and beads. Marine shell was fashioned into beads and ornaments.

d. Historic Background

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The following summary is adapted from A Cultural Resource Inventory and Assessment of the Del Puerto Alternative Reservoir Site, Stanislaus County, California (Bell et al. 1993). The Del Puerto Creek Canyon has been used historically for three main purposes, as a transportation route between the San Joaquin, San Antonio and Santa Clara Valleys, for grazing cattle and sheep, and as a mining district.

Mission to Mexican Period

The earliest references to Del Puerto Creek are found in 1810, when padres and soldiers led by Lieutenant Gabriel Moraga followed a trail through the canyon to the San Joaquin Valley to find escaped neophytes, "wild Indians", and scope new locations for inland missions (Cook 1960). A reference to the "old" canyon name in the 1810 document indicates the Del Puerto Canyon was an established route for mission expeditions (Bell et al. 1993). Expansion of missions ceased in the early 1820s when Mexico gained its independence from Spain. In 1844, the Mexican Rancho del Puerto was established; its northern boundary was El Puerto Creek. The Rancho, located to the east of the study area was used for grazing.

Patterson, mining, and Western Railroad Period

John Patterson acquired the Rancho Del Puerto in 1866 and began grazing merino sheep. Patterson also planted mainly barley on his immense property. Patterson, like other farmers in the San Joaquin Valley shipped their grain on the river until 1887 when the Southern Pacific railroad line was built that year in response to the agricultural boom (Elias 1924 cited in Bell et al. 1993). After John Patterson's death in 1902, his nephew Thomas (a controlling heir of his estate), sub-divided the land and laid out a town to serve as the hub of a farming community (Patterson County Historical Society n.d. cited in Bell et al. 1993).

Both the town of Patterson and the railroad facilitated mining operations in and near the canyon. Small scale coal mining in the canyon had begun before 1870 (Watts 1890). Later, several minerals were reported from Del Puerto Canyon including, clay, magnesia, quicksilver, and manganese (Lowell 1916). After the outbreak of World War I in 1914 and the dearth of foreign mineral shipments, manganese, magnesite, and chromium (also mined in the canyon) became more economically feasible to mine. Construction of the Patterson and Western Railroad, completed in 1916, connected the mines in the canyon with the processing facilities in Patterson. Various mining operations continued to operate in the canyon until the end of World War II (WW II).

From the early 1920's to 1940's Del Puerto Canyon was mainly used for grazing. After WW II, sheep replaced cattle, and the grain fields were gradually replaced by orchards and vegetable crops.

California Aqueduct (Information from the DPR site record, Patricia Ambacher 2011)

By the mid-1950s DWR identified the primary water issue in California as one of maldistribution. According to the DWR, too much water was wasted in northern California, and too little rain fell in southern California (DWR 1957:10-11). Plans to rectify this began in earnest after World War II during a period when California experienced a population surge and dramatic development throughout much of the state. Local governments and water officials quickly realized that their water supplies could not meet the growing demand of their communities. Farmers were also draining regional groundwater basins to irrigate their crops (DWR 2011).

To rectify this issue, state engineer Arthur D. Edmonston published a proposal that suggested building a multipurpose dam, reservoir, and power plant on the Feather River; an aqueduct to transport water from the Sacramento-San Joaquin Delta to Santa Clara and Alameda Counties; and a second aqueduct to serve the San Joaquin Valley and southern California (DWR 2011).

Edmonston proposed the construction of a giant aqueduct fed by massive, custom-designed pumps.

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that would force the water from the Delta southward, where it could be used to water the dry southern valley and the cities of southern California (DWR 1974:7). These planning efforts eventually came to fruition as the State Water Project (SWP). A key component of the SWP is the California Aqueduct, the primary delivery system of the SWP. It is the longest water conveyance feature of the SWP and its primary purpose is to transport water from the Delta to the San Joaquin Valley and Southern California. Branches of the aqueduct move water to the San Francisco Bay Area and Santa Barbara and San Luis Obispo counties. Construction on the California Aqueduct began in 1960 and the main line was completed in 1973 (Autobee2011:8; Golze 1965:8).

Today, the SWP provides drinking water for 25 million people; irrigates approximately 750,000 acres of crops; and features 34 storage facilities, 20 pumping plants, four pumping-generating plants, five hydroelectric power plants, and 700 miles of open canals and pipelines.

III. SOURCES CONSULTED

a. Record and Literature Search

California Historical Resources Information System: A records search for the APE was conducted on October 17, 2012 by the staff of the Central California Information Center of the California Historical Resources Information System (CHRIS) at California State University, Stanislaus (Attachment 1). The search encompassed a ¼-mile radius around the project area.

References consulted include:

- National Register of Historic Places- Listed Properties and Determined Eligible Properties (1988,) Computer Listings 1966 through December 2010 by National Park Service
- California Register of Historical Resources (2010)
- California Inventory of Historical Resources (1976)
- California Historical Landmarks (1996)
- California Points of Historical Interest (1992)
- Directory of Properties in the Historic Property Data File and the Archaeological Determinations of Eligibility (2010)
- The Caltrans State and Local Bridge Survey (1989)
- Survey of Surveys: A Summary of California's Historical and Architectural Resource Surveys (1989)
- GLO Plats and Historic Maps

b. Native American and Historical Society Consultation

The Native American Heritage Commission (NAHC) was contacted on October 11, 2012. The NAHC provided a list of local Native American representatives who could be contacted regarding their possible knowledge of resources within the project area. Letters of inquiry were sent on November 14, 2012 to the Tule River Indian Tribe, Buena Vista Rancheria, California Valley Miwok Tribe, North Valley Yokuts Tribe, Southern Sierra Miwuk Nation, and the Tuolumne Band of Me-Wuk.

The McHenry Museum and Historical Society was also sent a letter of inquiry on October 11, 2012 soliciting information on any known historic-era resources within the project area.

Attachments 3 and 4 contain copies of all related correspondence.

c. Results of Sources Consulted

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CHRIS Records Search

The CHRIS search indicated the presence of two cultural resources within the project area and one historic linear feature (Delta-Mendota Canal) recorded within a ¼-mile radius. The resources within the APE are identified as an unrecorded isolated hopper mortar and an historic linear feature (the California Aqueduct) cited by the CCIC as unrecorded in the project area.

The CHRIS search indicated that nine previous cultural studies have been conducted within the project area and one additional study has been conducted within a ¼-mile radius.

Additional Research

The author conducted additional background research in the DWR Cultural Resources Library. It was found that two additional relevant Cultural Resource Evaluation studies were performed within the APE that had not been reported in the CCIC record search. One is a recent study documenting the California Aqueduct and finding it eligible for NRHP listing under Criteria A/1 and C/3 (Bowen 2012) (see site record for the California Aqueduct Appendix 2). The other is a cultural resource inventory and assessment of the Del Puerto Alternative Reservoir Site (Bell et al. 1993). This study identified six prehistoric sites and five historic sites in the survey area. The prehistoric sites are situated along the Del Puerto Creek drainage ranging from slightly less than a mile to three miles upstream from the current project area. Two of these sites were identified as prehistoric habitation sites with middens and rock art and four were identified as milling stations located adjacent to the Del Puerto Creek channel. This report also cites a 1950 site record for a seventh site (CA-STA-42) which was plotted on the location map just over a quarter mile west of the current APE. The investigators were not able to relocate that site and proposed that it had possibly either been buried by sedimentation of the creek or destroyed. The historic sites are affiliated with the ranching and railroad/mining periods.

Native American Consultation

The NAHC conducted a search of the Sacred Lands File and reported that no Native American cultural resources are known to exist within the project area.

One response to the letters of inquiry sent on October 12, 2012 was received. On January 24, 2013, Ms. Silvia Burley, Chairperson, of the California Valley Miwok Tribe stated that the Tribe had no issues with the project, but noted that since ground disturbance will occur that the Tribe is concerned there could be artifacts or human remains found. She requested on behalf of the Tribe to be notified if any artifacts or human remains are discovered.

Follow-up emails or phone calls were placed to all of the knowledgeable individuals on February 20, 2013, for any additional questions or concerns they may have about the project. On March 21, 2013, Ms. Reba Fuller of the Tuolumne Band of Me-Wuk stated that the project area is not within their aboriginal territory and to contact Kathy Perez and that the Tuolumne Band did not have any concerns at this time.

Copies of all correspondence can be found in Attachment 3.

Historical Society Consultation

No response to the letter of inquiry sent on October 12, 2012 was received from the McHenry Museum and Historical Society.

Copies of all correspondence can be found in Attachment 4.

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IV. FIELD METHODS		
Name(s) of Surveyors	Qualifications	Date(s) of Fieldwork
Wendy Pierce	MA in Anthropology, California State University, Sacramento; 17 years archaeological experience in California.	January 23, 2013
Rebecca Gilbert	MA in Anthropology, University of California, Davis; 3.5 years archaeological experience in California.	January 23, 2013
Margaret Kress	MA in Anthropology, University of Montana, Missoula; 4.5 years archaeological experience in California.	January 23, 2013

DWR Archaeologists, Wendy Pierce, Rebecca H. Gilbert and Margaret Kress, of the Division of Environmental Services, conducted a field survey of the APE on January 23, 2013. They were accompanied by DWR Environmental Scientists Danika Tsao and Lesley Hamamoto. The APEs were surveyed with pedestrian transects a maximum of five meters apart. Visibility in the APE was moderate to poor. There were small areas of bare dirt and rodent back-dirt piles that were examined for artifacts, ecofacts, and anthropogenic soils. A concerted effort was made to relocate the isolated hopper mortar that was noted, but not recorded in the project area in 1984.

V. SURVEY RESULTS

The California Aqueduct is adjacent to the sediment removal location, but the spoils location is on top of the CA levee. The CA is the only cultural resource in the project area. The hopper mortar previously noted in the records search was not found within the project APE or in areas immediately adjacent. No new cultural resources were identified as a result of the January 23, 2013 survey within the APEs.

VI. DETERMINATION OF IMPACTS AND REMARKS

DWR has applied the criteria of adverse effect to the proposed project and determined that there is no adverse effect to the California Aqueduct. The proposed maintenance activities are designed to prolong the efficiency and function of the canal and associated features and are in compliance with the regular O&M work currently being implemented on the Aqueduct. The activities included here are consistent with the long term treatment and management of historic properties as outlined in 36 CFR § 68 and will not impact the resource. The activities proposed as part of this under-taking will not affect the qualities that make the Aqueduct eligible for the National Register under Criterion A or C, as all activities are envisioned to keep the Aqueduct operating as it was historically, moving and delivering water; and it will not change or alter the design, materials, or workmanship of the character defining features.

Based on this analysis, DWR finds the proposed undertaking will have no adverse effect to historic properties pursuant to 36 CFR § 800.5(b).

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Should cultural resources be uncovered while engaging in construction activities, all work will temporarily cease until the findings can be assessed by a qualified archaeologist and an appropriate course of action can be determined in consultation with the State Historic Preservation Officer. Furthermore, if human remains are uncovered, all work must stop immediately and the County coroner must be contacted pursuant to California Health and Human Safety Code 7050.5(b).

VII. CONDITIONS

As requested by Ms. Burley, DWR will notify the California Valley Miwok Tribe if any artifacts of human remains are found at the proposed project sites. The DWR project manager will contact DWR Cultural Staff and a qualified archaeologist will be appointed to assess the findings and determine an appropriate course of action.

VIII. CERTIFICATION

PREPARER: Wendy Pierce **TITLE:** Associate Environmental Planner-Archeology

Signature: 

Date: 4-18-2013

APPROVED BY: Jacqueline Wait **TITLE:** Senior Environmental Planner

Signature: 

Date: 18 April 2013

IX. FIGURES AND ATTACHEMENTS

U.S.G.S. QUADRANGLE NAME(S): Patterson 7.5-minute

LIST OF FIGURES:

- FIGURE 1 – Del Puerto Creek Sediment Removal Project: Project Location Map
- FIGURE 2 – Del Puerto Creek Sediment Removal Project: Detailed Aerial Map of Project Location
- FIGURE 3- Del Puerto Creek Sediment Removal Project: Detailed Aerial Map of Spoils Location

LIST OF ATTACHMENTS:

- ATTACHMENT 1 – RECORDS SEARCH

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ATTACHMENT 2 - CALIFORNIA AQUEDUCT SITE RECORD

ATTACHMENT 3 - NATIVE AMERICAN CONSULTATION

ATTACHMENT 4 - HISTORICAL SOCIETY CONSULTATION

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FIGURES:

- FIGURE 1 – Del Puerto Creek Sediment Removal Project:
Location Map
- FIGURE 2 – Del Puerto Creek Sediment Removal Project:
Detailed Aerial Map of Project Location
- FIGURE 3 – Del Puerto Creek Sediment Removal Project:
Detailed Aerial Map of Spoils Location

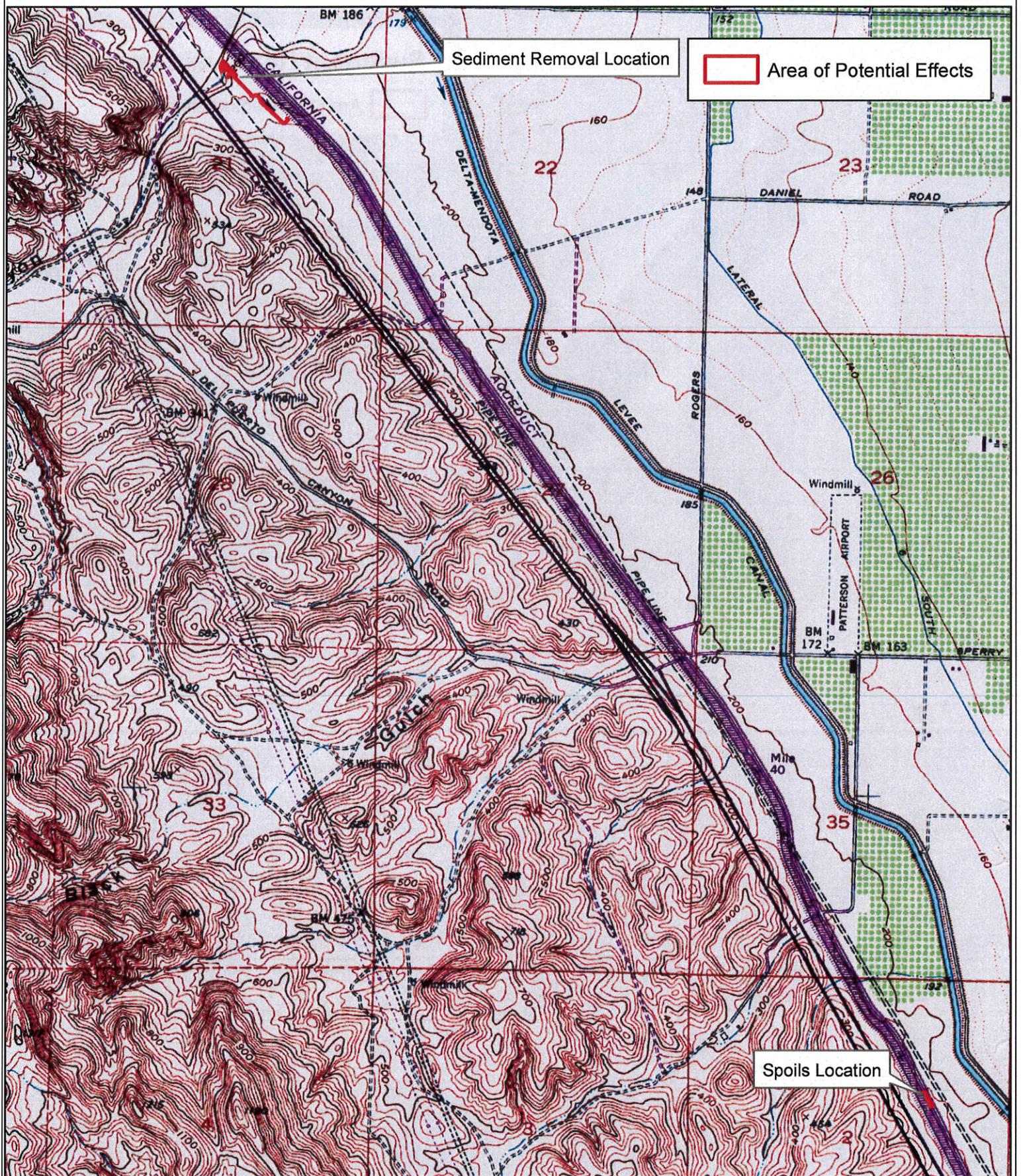


FIGURE 1
 DEL PUERTO CREEK SEDIMENT REMOVAL PROJECT
 PROJECT LOCATION MAP
 PATTERSON 7.5' USGS TOPOGRAPHIC QUADRANGLE
 STANISLAUS COUNTY, CALIFORNIA

1:25,000

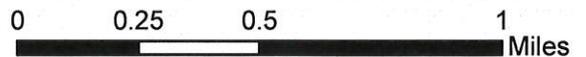




FIGURE 2
DEL PUERTO CREEK SEDIMENT REMOVAL PROJECT
DETAILED AERIAL MAP OF SEDIMENT REMOVAL LOCATION
STANISLAUS COUNTY, CALIFORNIA

1:2,500



0 125 250 500
Feet





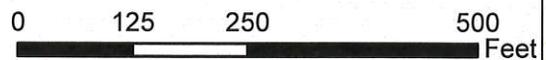
Spoils Location
[Red Rectangle] Area of Potential Effects

INTERSTATE 5



FIGURE 3
DEL PUERTO CREEK SEDIMENT REMOVAL PROJECT
DETAILED AERIAL MAP OF SPOILS LOCATION
STANISLAUS COUNTY, CALIFORNIA

1:2,500



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ATTACHMENT 1:

RECORDS SEARCH



CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System

Department of Anthropology – California State University, Stanislaus

One University Circle, Turlock, California 95382

(209) 667-3307 - FAX (209) 667-3324

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: October 17, 2012

CCIC File #: 8395 N

Project: Del Puerto Creek Sediment
Removal

DWR Standard Agreement#460009770:

Account #[to be determined]-20004

Wendy Pierce
California Dept. of Water Resources (DWR)
Division of Environmental Services
3500 Industrial Blvd.
West Sacramento, CA 95691

Dear Ms. Pierce,

We have conducted a records search as per your request for the above-referenced project area located on the Patterson USGS 7.5-minute quadrangle map in Stanislaus County.

Search of our files includes review of our maps for the specific project area and a one-quarter-mile radius of the project area (as specified by the client), and review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), *California Inventory of Historic Resources* (DPR 1976), the *California Historical Landmarks* (1996), and the *California Points of Historical Interest* listing (May 1992 and updates), the Directory of Properties in the Historic Property Data File (HPDF) and the Archaeological Determinations of Eligibility (ADOE) (Office of Historic Preservation current computer lists dated 4-05-2012), the CALTRANS State and Local Bridge Survey (1989 and updates), the *Survey of Surveys* (1989), GLO Plats, and other pertinent historic data available at the CCIC for each specific county. *Please note* that we do not currently have on file Local Inventories for this part of Stanislaus County (we currently only have one for the City of Modesto).

The following pages detail the results of the records search:

Prehistoric or historic resources within the project area:

1. One prehistoric isolate (hopper mortar), unrecorded; referenced in report (set) #ST-2753 as Field # "12-ISO-15". No copy attached.
2. One historic linear feature (California Aqueduct), unrecorded within the project or search radius, but recorded at other points in Stanislaus and San Joaquin Counties (as P-50-001903 and P-39-000090, respectively). Attached: 1994 record by JRP for portions in San Joaquin County; provided for history and evaluation of the resource [The NADB printout for the associated report #ST-2759 (not in your area) is attached to the record]; and the CCIC Resource Database printout for the resource in Stanislaus County. The California Aqueduct does not yet have an entry on the HPDF printout for Merced, Stanislaus, or San Joaquin County.
3. Please also see the following attached historic maps for other information:
 1. GLO Plat T5S/R7E Sheet #44-317 Date 1855-1870
 2. " " " " 44-318 1855-1879
 3. " " T6S/R7E 44-396 1859-1866
 4. " " " " 44-397 1874
 5. 1906 map of Stanislaus County (see copy for full title)
 6. 1916 Patterson USGS 7.5' (1:31680)
 7. 1919 Orestimba USGS 15' (1:62500)
 8. 1941 Orestimba USGS 15'(1:62500)

Prehistoric or historic resources within a one-quarter-mile radius of the project area:

1. No prehistoric or historic archaeological resources have been reported to the Information Center.
2. One historic linear feature (Delta-Mendota Canal), unrecorded within the search radius, but recorded at other points in Stanislaus, Merced, and San Joaquin Counties (as P-50-001904, P-24-001703, and P-39-000089, respectively). Attached: 1994 record by JRP for portions in San Joaquin County; provided for history and evaluation of the resource [The NADB printout for the associated report #ST-2759 (not in your area) is attached to the CA Aqueduct record]; and the CCIC Resource Database printout for the resource in Stanislaus County. The Delta-Mendota Canal has entries on the HPDF printout as follows: Stanislaus County, page 35, status code 2S2 (as part of the Central Valley Project); Merced County, pages 35-36, 2 entries with status code 6y and 2 with 2S2; San Joaquin County, pages 76-77, entries the same as Merced County (OHP has "mixed" some of the DOE's from San Joaquin County and Merced County together and the printout needs some corrections). We have heard from Bureau of Reclamation that a CVP multiple property nomination form has been in the works for a while now.

3. Bridge #38-121 (I-5 at Del Puerto Creek) is listed in Caltrans' *Structure Maintenance & Investigations, Historical Significance—State Bridges* (July 2012); it was built in 1967 and is not considered eligible for the NRHP. Page attached.

Resources known to have value to local cultural groups:

None have been formally reported to the CCIC.

Previous investigations within the project area:

9* have been reported to the Information Center; NADB printouts attached:

CCIC report #	Author/Date
ST-621	Moratto et al. (1990)
749	Maniery (1985)
853	Baker, Shoup, and Staebler (1987)
1846	Canaday, Ostrogorsky, and Hess (1992)
2753	Moratto, Pettigrew, Price, Ross, and Schalk (1994-1995)
4175	Flint (2000)
6133	Sikes, Holmes, and Cervantes (2006)
6384	Sikes and Arrington (2006)
7387	Wohlgemuth and Costello (2010)

*ST-2753 refers to a set of reports for one project

Previous investigations within a one-quarter-mile radius of the project area:

One reported; NADB printout attached:

CCIC report #	Author/Date
ST-3630	Nave (1999)

Comments: In accordance with Federal and State law, if any historical resources are found during project-related activities, work is to stop and the lead agency and a qualified professional are to be consulted to determine the importance and appropriate treatment of the find.

We understand that you will be conducting an archaeological study of the proposed project that is the subject of this records search. We look forward to receiving one copy of your report of findings which should include two copies each of site records for all historical resources.

We thank you for contacting this office regarding historical resource preservation. Please let us know when we can be of further service.

Note: Billing will be transmitted separately by our Financial Services office (\$265.31), payable within 60 days of receipt of the invoice.

Sincerely,



Robin Hards, Assistant Research Technician
E.A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

Department of Water Resources
ARCHAEOLOGICAL SURVEY REPORT

ATTACHMENT 2:

CALIFORNIA AQUEDUCT SITE RECORD

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3

Other Listings _____
Review Code _____ Reviewer _____ Date _____

*Resource Name or # (Assigned by recorder) California Aqueduct

P1. Other Identifier: Map Reference No. 18

***P2. Location:** Not for Publication Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County See Continuation Sheet

*b. USGS 7.5' Quad See Continuation Sheet Date See Continuation Sheet T ___; R ___; ___ 1/4 of Sec ___; _____ B.M.

c. Address _____ City _____ Zip _____

d. UTM: (give more than one for large and/or linear resources) Zone _____; _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The main line of the California Aqueduct is divided into five divisions: North San Joaquin, San Luis, South San Joaquin, Tehachapi, and the East Branch (previously the Mojave and Santa Ana Divisions) that are oriented in a general north to south direction. The aqueduct also features two main branches: the Coastal, which generally extends southwest from the main line at Milepost 184.63, 16 miles south of Kettleman City and terminates in San Luis Obispo and Santa Barbara Counties, and West which extends southwest from the Tehachapi Afterbay in Kern County to Castaic Lake, north of Santa Clarita in Los Angeles County. The entire main line of the aqueduct is 444 miles long. It begins in the Sacramento-San Joaquin Delta in the North San Joaquin Division, and terminates at the southern end of the state at Lake Perris, Riverside County, in the East Branch Division. Each division contains such features as bridges, siphons, culverts, and canal drains. The combination of these features and the canal itself forms a unified water conveyance system. (See Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) HP20. Canal/Aqueduct

***P4. Resources Present:** Building Structure Object Site District Element of District Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession #) California Aqueduct, MP 117.5, October 21, 2011

***P6. Date Constructed/Age and Sources:**
 Historic Prehistoric Both
1960-1974 / Dept. of Water Resources

***P7. Owner and Address:**
California Department of Water Resources
1416 9th Street
Sacramento, CA 95814

***P8. Recorded by:** (Name, affiliation, address)
Patricia Ambacher
AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

***P9. Date Recorded:** October 21, 2011

***P10. Survey Type:** (Describe) Intensive



***P11. Report Citation:** Historical Resources Evaluation Report: 17 Bridges Seismic Retrofit Project, AECOM 2012

***Attachments:** NONE Location Map Sketch Map Continuation Sheet Building, Structure, and Object Record Archaeological Record
 District Record Linear Feature Record Milling Station Record Rock Art Record Artifact Record Photograph Record
 Other (list) _____

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 of 8

*NRHP Status Code 3

*Resource Name or # (Assigned by recorder) California Aqueduct

B1. Historic Name: California Aqueduct

B2. Common Name: California Aqueduct

B3. Original Use: Aqueduct B4. Present Use: Aqueduct

*B5. Architectural Style: Utilitarian

*B6. Construction History: (Construction date, alteration, and date of alterations) 1960-1974

*B7. Moved? No Yes Unknown Date: _____ Original Location: _____

*B8. Related Features: Bridges that cross the aqueduct, control facilities, canals, siphons, drains

B9. Architect: Unknown b. Builder: Unknown

*B10. Significance: Theme Transportation and Water Conveyance Area California

Period of Significance 1960-1974 Property Type Aqueduct Applicable Criteria A,C

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

By the mid-1950s, the California Department of Water Resources (DWR) identified the primary water issue in California as one of maldistribution. According to the DWR, too much water was wasted in northern California, and too little rain fell in southern California (DWR 1957:10–11). Plans to rectify this maldistribution began in earnest after World War II during a period when California experienced a population surge and dramatic development throughout much of the state. Local governments and water officials quickly realized that their water supplies could not meet the growing demand of their communities. Farmers were also draining regional groundwater basins to irrigate their crops (DWR 2011). To rectify this issue, state engineer, Arthur D. Edmonston, published a proposal that suggested building a multipurpose dam, reservoir, and power plant on the Feather River, northeast of the small town of Oroville in the northern Sacramento Valley; an aqueduct to transport water from the Sacramento-San Joaquin Delta to Santa Clara and Alameda Counties; and a second aqueduct to serve the San Joaquin Valley and southern California (DWR 2011). The storage of water would reduce flooding hazards, and the stored water could be released into the Sacramento River at planned intervals and then deposited into the Sacramento-San Joaquin Delta. Here it would be able to check the flow of salt water from the San Francisco Bay, which during droughts had seeped as far inland as Sacramento. The project would be paid for in part by the electricity generated at the dam's power plant in Oroville. (See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References: See Continuation Sheet

B13. Remarks:

*B14. Evaluator: Patricia Ambacher

*Date of Evaluation: April 12, 2012

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

See Location Map

Page 3 of 8

*Resource Name or # (Assigned by recorder) California Aqueduct

*Recorded by Patricia Ambacher, AECOM *Date October 21, 2011 Continuation Update

County (cont)

Counties Listed From North to South

Aqueduct's Main Line

Coastal Branch

West Branch

Alameda County
San Joaquin County
Stanislaus County
Merced County
Fresno County
Kings County
Kern County
Los Angeles County
San Bernardino County
Riverside County

Kern County
San Luis Obispo County
Santa Barbara County

Los Angeles County

USGS 7.5' Quad (cont)

Quads Listed from North to South

Aqueduct's Main Line

Clifton Court Forebay 1978
Midway 1953 (R 1980)
Tracy 1954 (R 1981)
Vernalis 1991
Solyo 1991
Westley 1991
Patterson 1953 (R 1971)
Crows Landing 1952 (R 1980)
Newman 1952 (R 1971)
Howard Ranch 1953 (R 1971)
San Luis Dam 1969 (R 1978)
Volta 1960 (R 1971)
Ortogonalita Peak NW 1969 (R 1984)
Charleston School 1956 (R 1971)
Laguna Seca Ranch 1956 (R 1971)
Hammonds Ranch 1956 (R 1984)
Chounet Ranch 1956 (R 1971)
Chaney Ranch 1955 (R 1971)
Monocline Ridge 1955 (R 1971)
Levis 1956 (R 1984)
Cantua Creek 1956 (R 1984)
West Camp 1954 (R 1973)
Tres Picos Farms 1956 (R 1971)
Domengine Ranch 1956 (R 1979)
Harris Ranch 1956 (R 1971)

Calflax 1956 (R 1971)
Huron 1956 (R 1971)
La Cima 1963 (R 1971)
Kettleman City 1963 (R 1981)
Los Viejos 1954 (R 1981)
Avenal Gap 1954 (R 1973)
Antelope Plain 1954 (R 1982)
Los Hills NW 1954 (R 1973)
Los Hills 1953 (R 1973)
Belridge 1953 (R 1973)
Lokern 1954 (R 1973)
West Elk Hills 1954 (R 1973)
East Elk Hills 1954 (R 1973)
Tupman 1954 (R 1968 and 1973)
Mouth of Kern 1950 (R 1968 and 1973)
Maricopa 1950 (R 1973)
Pentland 1953 (R 1968 and 1973)
Conner SW 1955 (R 1968 and 1973)
Coal Oil Canyon 1955 (R 1968 and 1973)
Mettler 1955 (R 1968 and 1973)
Grapevine 1991
Pastoria Creek 1991
La Liebre Ranch 1965 (R 1974)
Neenach School 1965 (R 1974)
Fairmont Butte 1965 (1974)

Lake Hughes 1957 (R 1974)
Del Sur 1958 (R 1974)
Lancaster West 1958 (R 1974)
Ritter Ridge 1958 (R 1974)
Palm Dale 1958 (R 1974)
Littlerock 1957 (R 1974)
Juniper Hills 1959 (R 1988)
Valyermo 1958 (R 1988)
Mescal Creek 1956 (R 1988)
Phelan 1956 (R 1988)
Baldy Mesa 1956 (R 1988)
Hesperia 1956 (R 1980)
Silverwood Lake 1956 (R 1988)
San Bernardino North 1967 (R 1988)
San Bernardino South 1967 (R 1980)
Riverside East 1967 (R 1980)
Sunnymead 1967 (R 1980)
Perris 1967 (R 1979)

Coastal Branch

Avenal Gap 1954 (R 1973)
Emigrant Hill 1953 (R 1973)
Sawtooth Ridge 1961 (R 1994)
Orchard Peak 1961 (R 1993)
Cholame 1961 (R 1993)

Camatta Canyon 1961 (R 1976)
Shedd Canyon 1961 (R 1993)
Wilson Corner 1966 (R 1976)
Santa Margarita 1965 (R 1993)
San Luis Obispo 1965 (R 1994)

Lopez Mountain 1965 (R 1993)
Arroyo Grande NE 1965 (R 1993)
Oceano 1965 (R 1979)
Nipomo 1965

West Branch

La Liebre Ranch 1965 (R 1974)
Lebec 1991
Black Mountain 1991

Liebre Mountain 1958 (R 1988)
Whitaker Peak 1958 (R 1988)
Warm Springs Mountain 1958 (R 1988)

Newhall 1952 (R 1988)

Description (cont)

The California Aqueduct is trapezoidal and lined with un-reinforced concrete. The depth, bottom width, and surface width of the canal vary slightly in each division. In the North San Joaquin Division, the aqueduct is approximately 33 feet deep and 40 feet wide at the bottom. This section of the canal is approximately 63 miles long with side slopes of 1½:1. In the San Luis Unit, the canal's depth and bottom width ranges between approximately 25 and 37 feet deep and 50 to 110 feet wide. The 103-mile-long canal has side slopes of 2:1. In the South San Joaquin Division, the aqueduct is 121 miles long and its depth ranges between approximately 21 and 26 feet. Its bottom width varies between 24 and 32 feet with a 2:1 and 2½:1 slope. The aqueduct is 24.5 feet deep with a bottom width of 10 feet in the Tehachapi Division. The side slopes are 2:1. In the East Branch, the aqueduct has an average depth of 20 feet, with a bottom width of between 12 and 16 feet. The East Branch's 98 mile-long segment has side slopes that vary between 2:1 and 3:1. The average surface width for the California Aqueduct is between 90 and 110 feet. The widest bottom width is 50 feet and the deepest section is approximately 33 feet (DWR 2010).

Significance (cont)

Edmonston also proposed constructing a giant aqueduct fed by massive, custom-designed pumps that would force the water from the Delta southward, where it could be used to water the dry southern valley and the cities of southern California after pumps moved it over the Tehachapi Mountains at the southern end of the San Joaquin Valley (DWR 1974:7). These planning efforts eventually came to fruition as the State Water Project (SWP). Financing for the SWP was approved by the voters of California in 1960 as a result of the Burns-Porter Act (DWR 2010). When brought to the voters as a referendum, the public which was divided along northern and southern California ideologies (both having concerns regarding loss of water), approved the bond measure by a narrow margin of 173,944 votes.

A key component of the SWP is the California Aqueduct, the primary delivery system of the SWP. It is the longest water conveyance feature of the SWP and its primary purpose is to transport water from the Delta to the San Joaquin Valley and Southern California. Branches of the aqueduct move water to the San Francisco Bay Area and Santa Barbara and San Luis Obispo counties. Construction on the California Aqueduct began in 1960 and the main line was completed in 1973 (Autobee 2011:8; Golze 1965:8).

Early in the planning and design phase for the California Aqueduct, the engineers decided that a lined canal would be more efficient than a compacted earthen lined canal. An earthen lined canal, while less expensive to build, would create a loss of water from seepage, higher head loss because of friction, and increased maintenance. The advantages of a lined canal included less seepage and maintenance, lower head loss, and greater reliability overall. Unreinforced concrete was selected for the lining because it would not be under stress that would necessitate reinforced concrete. The lining was intended to be a minimum of two inches thick, 3.5 inches for side slopes between 15 and 30 feet, and for longer slopes the thickness increased to four inches. A horizontal lip of 12 inches was placed at the top of the lining to help prevent seepage behind the lining (DWR 1974:8).

Engineers designed roads on each side of the California Aqueduct in sections where the area exceeded 36 feet between the inside edge of the roadway to the bottom of the far canal side. The roads were designed to drain away from the canal and be between two and four feet above the canal's lining. The primary road was planned for future use as an operating road for patrolling, canal maintenance, and through-traveling. These primary operating roads received better paving. At points subject to flooding, bridges were constructed on the primary operating roads if an alternative public bridge was not usable. On average, engineers constructed operational bridges or other vehicular crossings of the canal at four mile intervals (DWR 1974:11).

The San Luis Unit, which includes the San Luis Reservoir, located about 15 miles west of Los Banos, adjacent to State Route 152, was an outgrowth of the Bureau of Reclamation's 1949 Central Valley plan that called for additional storage capacity to alleviate record groundwater drawdowns (Autobee 2011:7; DWR 1974:49, 52). The San Luis Unit portion of the California Aqueduct is unique in that it is a joint project between the federal (Reclamation) and the state (DWR) governments, with the federal government responsible for 45% of the funds and California responsible for 55% (San Luis Unit Central Valley Project 1963:1, 4). The O'Neill Pumping Plant draws water from the San Luis Reservoir and pumps it south. The San Luis Unit extends from the O'Neill Forebay (created with the construction of the dam) nearly 100 miles to Kettleman City. DWR was responsible for constructing the segment from the Delta inlet to the San Luis Reservoir in Merced County. BOR constructed the next 102 miles of the aqueduct, which is identified as the San Luis Canal. The extended conveyance structure is again identified as the California Aqueduct after it passes the Westlands Water District to the south in Fresno and Kings counties (Garone 2011:209).

Today, the SWP provides drinking water for 25 million people; irrigates approximately 750,000 acres of crops; and features 34 storage facilities, 20 pumping plants, four pumping-generating plants, five hydroelectric power plants, and 700 miles of open canals and pipelines.

The California Aqueduct appears to meet the criteria for listing in the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) at the state level of significance under NRHP/CRHR Criterion A/1 representing a comprehensively planned and publicly sanctioned water conveyance public works project to facilitate development throughout the state. It also appears to meet the criteria under NRHP/CRHR C/3 for its complex design necessary to redistribute water throughout the state of California on such a massive level. The period of significance for the resource is 1960-1974, the years of construction.

The California Aqueduct was the largest and most significant of the water conveyances systems developed as part of the SWP California. The SWP includes 701 miles of aqueducts, canals and pipelines and the California Aqueduct comprises 444 miles of the system. The aqueduct was a critical component of the SWP and was an essential feature in the development of California. The water serves users in the San Joaquin Valley where the aqueduct allowed thousands of acres of new land to be cultivated, thereby dramatically increasing California's agricultural efforts in the region and propelling the state to the top in nationwide in agricultural production. In Southern California, the aqueduct serves municipal users by supplying drinking water. The aqueduct represents one of the most bold and successful public works projects ever initiated by a state government. The California Aqueduct profoundly altered the distribution of water resources across California. Without its construction, the maldistribution of water in California would likely have continued because Northern California still receives more rain than any other region in California. Without the SWP and the aqueduct, precious runoff would have drained into to the ocean unused. The forecasted population increases, particularly for Southern California and the San Francisco Bay Area necessitated a system of water redistribution. The aqueduct facilitated the agricultural development the San Joaquin Valley and Southern California. Therefore, it appears to meet NRHP/CRHR Criterion A/1.

The California Aqueduct is associated with many individuals who contributed to the planning and implementation of the project. Within certain contexts those individuals could be considered significant under NRHP/CRHR Criterion B/2. One notable person associated with the aqueduct is Governor Edmund G. "Pat" Brown. Brown was instrumental in spurring political and public support for the construction of the SWP, including the California Aqueduct, and its completion was one of his most significant accomplishments as governor. The aqueduct was one of several significant achievements of Brown's governorship. Brown was also responsible for the Fair Housing Act, Fair Unemployment Act, the master plan for higher education in California and the expansion of the state highway system. Each of these is also important for their association with Governor Brown. According to *National Register Bulletin 32: Guidelines for Evaluating and Documenting Properties Associated with Significant Persons*, an eligible property must be directly associated with the significant individual and be the

best property to represent the person's significance. The aqueduct does not appear significant under NRHP/CRHR Criterion B/2 for its association with Governor Brown because it is not the best representation of Brown's significance. His significance can be better tied to other properties, including places such as his former office or home. Those are the properties where Brown conducted his work, including the planning and drafting of critical legislation that brought the aqueduct to fruition. The aqueduct does symbolize Brown's dedication to California's development, but the symbolic value is not a substitute for direct association. Nor is it the best representation or only surviving property that can convey Brown's significance as governor.

As an engineering structure, the California Aqueduct appears to meet NRHP/CRHR Criterion C/3. The California Aqueduct introduced design innovations in the construction of the system. Within the context of water conveyance it is a significant and distinguishable engineering entity significant for its type, period and method of construction and is the largest water conveyance structure in California. The trapezoidal design and the concrete lining of the aqueduct allowed it to carry more water and reduce the loss of head water and seepage and made the aqueduct more efficient. Because the SWP operates on a controlled volume concept, the design for the aqueduct required more check structures that could accommodate change in flows during peak flows with a minimal surface fluctuation. The California Aqueduct was built as a utility system with the capacity for performance and a tremendous amount of structural integrity. The aqueduct is also distinguishable in its use of a high depth-width ratio which allowed for the reduction of adverse effects of alignment curvature on the flow.

Under NRHP/CRHR Criterion D/4 the California Aqueduct is not likely to yield information important to history because as a water conveyance system it is not the principal source of important information. Therefore, the aqueduct is not a contributor under this criterion.

Because completion of the aqueduct is less than 45 years old it is also evaluated under NRHP Criterion Consideration G and the CRHR special consideration for properties less than 50 years old. The California was a planned comprehensive water redistribution system that helped shape the development of much of California following the mid-20th century. Water development is an important and ongoing historic theme within the history of the west. Added to this is the magnitude of planned change to the California landscape brought about by this single engineered public works project and the ability for the California Aqueduct to meet the definition of "exceptional importance" at the statewide level is clear. The general understanding of the exceptional importance of this system is evidenced in the ASCE listing it as one of only 10 internationally ranked "Monuments of the Millennium" for its remarkable engineering aspects, as well as for the positive impact it had on regional economic trade and development.

In addition to being significant, the California Aqueduct also retains sufficient integrity to convey its significance. The aqueduct retains integrity of location because it exists in its original alignment and has not been redirected. Integrity of design is maintained and the aqueduct continues to reflect the historic functions as a water conveyance structure and its scale, proportion and relationship to other features of the SWP is maintained. The integrity of materials is also retained. The aqueduct has undergone routine maintenance, but its primary material of unreinforced concrete has not changed. The California Aqueduct continues to display integrity of workmanship and the construction techniques used on the aqueduct are still visible. Although the setting around the aqueduct is altered in places, the setting for the overall 444 miles is intact. The aqueduct was designed to blend into the landscape, which remains largely rural and agricultural. Thus, the California Aqueduct retains integrity of setting and expresses the basic physical conditions under which it was constructed. Lastly, the California Aqueduct retains integrity of feeling and association. The proximity to agricultural lands and Interstate 5 provides a sense of time and place for the aqueduct. The aqueduct's integrity of feeling and association is enhanced when combined with the control facilities, the maintenance roads, and the bridges that cross the aqueduct. The retention of integrity allows the aqueduct to express its significance as a water conveyance feature.

In summary, the California Aqueduct appears to meet the criteria for listing in the NRHP and the CRHR for its representation as a comprehensively planned and publicly sanctioned water conveyance public works project to facilitate development throughout the state and its complex design necessary to redistribute water throughout the state of California on such a massive level. The aqueduct also retains the aspects of integrity required to convey its significance.

Page 7 of 8

*Resource Name or # (Assigned by recorder) California Aqueduct

*Recorded by Patricia Ambacher, AECOM *Date October 21, 2011 Continuation Update

References (cont)

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1965 Status of Construction of the State Water Project. Presented before the California State Chamber of Commerce, Los Angeles, California.

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1963 Pamphlet. Ralph L. Milliken Collection at the Ralph Milliken Museum, Los Banos, California.



Department of Water Resources
ARCHAEOLOGICAL SURVEY REPORT

ATTACHMENT 3:

NATIVE AMERICAN CONSULTATION

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



October 11, 2012

Ms. Debbie Pilas-Treadway
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Dear Ms. Pilas-Treadway:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E (Figures 2 and 3).

Please notify me if any sacred lands are recorded within or in close proximity to the depicted project areas. Early identification of sacred properties will ensure their consideration during the project planning phase. Please also provide an updated list of Native American contacts for the area. Your response may be sent to me at the address provided above, or you may fax the information to (916) 376-9688. Please contact me at (916) 376-9792 or at wpierce@water.ca.gov if you have any questions regarding this request. If we do not receive a response to this inquiry within 30 days, it will be assumed that you are not aware of any sacred lands within the project areas.

Sincerely,

Wendy Pierce
Associate Environmental Planner-Archeology
Office (916) 376-9792
Fax (916) 376-9688
wpierce@water.ca.gov

Attachments (3)

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net



November 9, 2012

Ms. Wendy Pierce, Associate Environmental Planner-Archaeology

California Department of Water Resources

3500 Industrial Boulevard
West Sacramento, CA 95691

Sent by U.S. Mail;

No. of Pages: 5

Re: Sacred Lands File Search and Native American Contacts list for the proposed Sacred Lands File Search and Native American Contacts list for the proposed **"Bank Stabilization Improvements as part of Del Puerto Creek Sediment Removal Project;"** located on the west side of the California Aqueduct near the Town of Patterson; Stanislaus County, California

Dear Ms. Pierce:

The Native American Heritage Commission (NAHC) conducted a Sacred Lands search based on the data provided and **Native American cultural resource sites were not identified** in the location you specified. Also the absence of archaeological fixtures and other cultural resource items does not preclude their existence at the subsurface level. In addition, please note; the NAHC Sacred Lands Inventory is not exhaustive and does not preclude the discovery of cultural resources during any project groundbreaking activity.

California Public Resources Code §§5097.94 (a) and 5097.96 authorize the NAHC to establish a Sacred Land Inventory to record Native American sacred sites and burial sites. These records are exempt from the provisions of the California Public Records Act pursuant to California Government Code §6254 (r). The purpose of this code is to protect such sites from vandalism, theft and destruction.

In the 1985 Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources, impacted by proposed projects including archaeological, places of religious significance to Native Americans and burial sites.

The California Environmental Quality Act (CEQA – CA Public Resources Code §§ 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential

effect (APE), and if so, to mitigate that effect. CA Government Code §65040.12(e) defines "environmental justice" provisions and is applicable to the environmental review processes. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and California Public Resources Code Section 21083.2 (Archaeological Resources) that requires documentation, data recovery of cultural resources, construction to avoid sites and the possible use of covenant easements to protect sites.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Local Native Americans may have knowledge of the religious and cultural significance of the historic properties of the proposed project for the area (e.g. APE). Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). We urge consultation with those tribes and interested Native Americans on the list that the NAHC has provided in order to see if your proposed project might impact Native American cultural resources. Lead agencies should consider avoidance as defined in §15370 of the CEQA Guidelines when significant cultural resources as defined by the CEQA Guidelines §15064.5 (b)(c)(f) may be affected by a proposed project. If so, Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "substantial," and Section 21083.2 which requires documentation, data recovery of cultural resources.

The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

Partnering with local tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 4(f), Section 110 and (k) of the federal NHPA (16 U.S.C. 470 *et seq*), Section 4(f) of the Department of Transportation Act of 1966 (23 CFR 774); 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C. 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The NAHC remains concerned about the limitations and methods employed for NHPA Section 106 Consultation.

Also, California Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery', another important reason to have Native American Monitors on board with the project.

To be effective, consultation on specific projects must be the result of an ongoing

relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. An excellent way to reinforce the relationship between a project and local tribes is to employ Native American Monitors in all phases of proposed projects including the planning phases.

Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of the NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibility threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Singleton", written over a printed name.

Dave Singleton

Attachment: Native American Contact List

**Native American Contacts
Stanislaus County
November 9, 2012**

Tuolumne Band of Me-Wuk
Stanley Cox, Cultural Resources Dr
P.O. Box 699 Me-Wuk - Miwok
Tuolumne , CA 95379
receptionist@mlode.com
(209) 928-3475 - Tribal
Office
(209) 928-1677 - Fax

Tuolumne Band of Me-Wuk
Reba Fuller
P.O. Box 699 Me-Wuk - Miwok
Tuolumne , CA 95379
rfuller@mlode.com
(209) 928-3475 - Tribal
Office
(209) 928-1677 - Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed Bank Stabilization Improvements as part of the Del Puerto Creek Sediment Removal Project, located on the west side of the California Aqueduct near the Town of Patterson, Stanislaus County, California.

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Stanley Cox, Cultural Resource Director
Tuolumne Band of Me-Wuk
P.O. Box 699
Tuolumne, CA 95379

Dear Mr. Cox:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E (Figures 2 and 3).

The early identification of heritage sites (including plant collection locations) within the project area will insure their consideration prior to start of construction. If any heritage sites are located within the proposed project area, please notify us by sending a response to the address provided above, or by calling or e-mailing me at the number provided below. If we do not receive a response to this inquiry within 30 days, we will assume that you are not aware of any sacred lands within the project area. If you plan to respond, but will need longer than 30 days, please notify us of your expected response date.

Sincerely,

A handwritten signature in black ink, appearing to read "Wendy Pierce".

Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Reba Fuller
Tuolumne Band of Me-Wuk
P.O. Box 699
Tuolumne, CA 95379

Dear Ms. Fuller:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E (Figures 2 and 3).

The early identification of heritage sites (including plant collection locations) within the project area will insure their consideration prior to start of construction. If any heritage sites are located within the proposed project area, please notify us by sending a response to the address provided above, or by calling or e-mailing me at the number provided below. If we do not receive a response to this inquiry within 30 days, we will assume that you are not aware of any sacred lands within the project area. If you plan to respond, but will need longer than 30 days, please notify us of your expected response date.

Sincerely,

A handwritten signature in black ink, appearing to read "Wendy Pierce".

Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Anthony Brochini, Chairman
Southern Sierra Miwuk Nation
P.O. Box 1200
Mariposa, CA 95338

Dear Chairman Brochini:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E (Figures 2 and 3).

The early identification of heritage sites (including plant collection locations) within the project area will insure their consideration prior to start of construction. If any heritage sites are located within the proposed project area, please notify us by sending a response to the address provided above, or by calling or e-mailing me at the number provided below. If we do not receive a response to this inquiry within 30 days, we will assume that you are not aware of any sacred lands within the project area. If you plan to respond, but will need longer than 30 days, please notify us of your expected response date.

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Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Mary Camp, Tribal Administrator
Tuolumne Band of Me-Wuk
P.O. Box 699
Tuolumne, CA 95379

Dear Ms. Camp:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E (Figures 2 and 3).

The early identification of heritage sites (including plant collection locations) within the project area will insure their consideration prior to start of construction. If any heritage sites are located within the proposed project area, please notify us by sending a response to the address provided above, or by calling or e-mailing me at the number provided below. If we do not receive a response to this inquiry within 30 days, we will assume that you are not aware of any sacred lands within the project area. If you plan to respond, but will need longer than 30 days, please notify us of your expected response date.

Sincerely,

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Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Kevin Day
Chairman
Tuolumne Band of Me-Wuk
P.O. Box 699
Tuolumne, CA 95379

Dear Chairman Day:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E (Figures 2 and 3).

The early identification of heritage sites (including plant collection locations) within the project area will insure their consideration prior to start of construction. If any heritage sites are located within the proposed project area, please notify us by sending a response to the address provided above, or by calling or e-mailing me at the number provided below. If we do not receive a response to this inquiry within 30 days, we will assume that you are not aware of any sacred lands within the project area. If you plan to respond, but will need longer than 30 days, please notify us of your expected response date.

Sincerely,

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Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Les James, Spiritual Leader
Southern Sierra Miwuk Nation
P.O. Box 1200
Mariposa, CA 95338

Dear Mr. James:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E (Figures 2 and 3).

The early identification of heritage sites (including plant collection locations) within the project area will insure their consideration prior to start of construction. If any heritage sites are located within the proposed project area, please notify us by sending a response to the address provided above, or by calling or e-mailing me at the number provided below. If we do not receive a response to this inquiry within 30 days, we will assume that you are not aware of any sacred lands within the project area. If you plan to respond, but will need longer than 30 days, please notify us of your expected response date.

Sincerely,

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Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Silvia Burley, Chairwoman
California Valley Miwok Tribe
10601 N Escondito Pl
Stockton, CA 95212

Dear Chairwoman Burley:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E (Figures 2 and 3).

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Sincerely,

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Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Rhonda Morningstar Pope
Chairwoman
Buena Vista Rancheria
1418 20th St. Suite 200
Sacramento, CA 95811

Dear Chairwoman Pope:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

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Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Katherine Erolinda Perez
North Valley Yokuts Tribe
P.O. Box 717
Linden, CA 95236

Dear Ms. Perez:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

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Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



November 14, 2012

Neil Peyron
Chairman
Tule River Indian Tribe
P.O. Box 589
Porterville, CA 93258

Dear Chairman Peyron:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

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Sincerely,

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Wendy Pierce
Associate Environmental Planner-Archaeology
Office (916) 376-9792
Fax (916) 376-9688
Wendy.Pierce@water.ca.gov

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



October 11, 2012

~~Stanislaus County~~ ^{copy}
McHenry Museum & Historical Society
1402 I Street
Modesto, CA 95354

Dear Historical Society Members:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate spoils location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils deposit site located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E.

Please notify me of any historic-era resources within or in close proximity to the defined project area. Early identification of historic-era resources will ensure their consideration during the project planning phase. Your response may be sent to me at the address provided above, or you may fax the information to (916) 376-9688. Please contact me at (916) 376-9792 or at wpierce@water.ca.gov if you have any questions regarding this request. If we do not receive a response to this inquiry within 30 days, it will be assumed that you are not aware of any historic-era resources within the project area.

Thank you for giving this matter your prompt attention.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wendy Pierce', written over a horizontal line.

Wendy Pierce
Associate Environmental Planner-Archeology
Office (916) 376-9792
Fax (916) 376-9688

Attachments (1)



Native American Consultation Log: Del Puerto Creek Sediment Removal Project

County: Stanislaus

Individual Contacted	Affiliation	Position	Number/Email	Date	Response	Follow-up	Response	Comments
Neil Peyron	Tule River Indian Reservation	Chairman	(559) 781-4271 chairman@tulerivertribe-nsn.gov	letter sent 11/14/2012	None	email sent 3/20/2013	None	
Rhonda Morningstar Pope	Buena Vista Rancheria	Chairwoman	(916) 491-0011 rhonda@buenavistatribes.com	letter sent 11/14/2012	None	email sent 3/20/2013	None	
Silvia Burley	California Valley Miwok Tribe	Chairwoman	(209) 931-4567 office@cvmnt.net	letter sent 11/14/2012	Email received 1/24/2013			On 1/24/2013 the California Valley Miwok Tribe had no concerns with the project, but asked to be notified if artifacts or human remains are found.
Katherine Erolinda Perez	North Valley Yokuts Tribe		(209) 887-3415 canutes@verizon.net	letter sent 11/14/2012	None	email sent 3/20/2013	None	
Anthony Brochini	Southern Sierra Miwok Nation	Chairman	(209) 379-1008 tony_brochini@nps.gov	letter sent 11/14/2012	None	email sent 3/20/2013	None	
Les James	Southern Sierra Miwok Nation	Spiritual Leader	(209) 966-3690	letter sent 11/14/2012	None	Called 3/28/2013	See Comments	Mr. James stated that he is not familiar with the project area and cannot comment on the project.
Kevin Day	Tuolumne Band of Me-Wuk	Chairman	(209) 928-3475 receptionist@mlode.com	letter sent 11/14/2012	None	email sent 3/20/2013	None	
Mary Camp	Tuolumne Band of Me-Wuk	Tribal Administrator	(209) 928-3475 receptionist@mlode.com	letter sent 11/14/2012	None	email sent 3/20/2013	None	
Stanley Cox	Tuolumne Band of Me-Wuk	Cultural Resources Dir.	(209) 928-3475 receptionist@mlode.com	letter sent 11/14/2012	None	email sent 3/20/2013	None	
Reba Fuller	Tuolumne Band of Me-Wuk		(209) 928-3475 rfuller@mlode.com	letter sent 11/14/2012	None	email sent 3/20/2013	email received 3/21/2013	Ms. Fuller stated the area is not within Tuolumne Band aboriginal territory and to contact Kathy Perez, as she is the contact for this area. She said, at this time we do not have any concerns and we defer to Kathy.

From: s.burley@californiavalleymiwoktribe-nsn.gov
To: [Pierce, Wendy@DWR](mailto:Pierce.Wendy@DWR)
Subject: Del Puerto Creek Sediment Removal Project, near Patterson, Stanislaus County, CA
Date: Thursday, January 24, 2013 2:47:03 PM

January 24, 2013

Ms. Wendy Pierce,
Associate Environmental Planner-Archaeology
Department of Water Resources
Division of Environmental Services
3500 Industrial Boulevard
West Sacramento, California 95691
Wendy.Pierce@water.ca.gov

Re: Del Puerto Creek Sediment Removal Project, near Patterson, Stanislaus County, CA

Dear Ms. Pierce;

The California Valley Miwok Tribe (CVMT) is in receipt of your letter (dated November 14, 2012). It is understood that the California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location as part of the Del Puerto Creek Sediment Removal Project. The APE includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southwest of the project at post mile 41.5. The total project area is approximately 0.3 acres.

Project Description: The proposed project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5" USGS topographic quadrangle. The project site is, furthermore, located within Section 2, and Township 6S, Range 7E.

COMMENTS: CVMT's only concern is that since ground disturbance will take place, there is a heightened possibility that historic Miwok artifacts and/or human remains could be found. Therefore, the Tribe is requesting that it be notified of Miwok artifacts and/or human remains if any are discovered at the proposed project site.

Respectfully Submitted,

/s/
Silvia Burley, Chairperson
s.burley@californiavalleymiwoktribe-nsn.gov

.....
California Valley Miwok Tribe
10601 N. Escondido Pl.
Stockton, CA 95212
Tribal Office: (209) 931-4567
Fax: (209) 931-4333
Office Email: office@cvmt.net
Tribal Council: tribe@californiavalleymiwoktribe-nsn.gov

<http://www.californiavalleymiwoktribe-nsn.gov>

From: [Reba Fuller](#)
To: [Pierce, Wendy@DWR](mailto:Pierce.Wendy@DWR)
Subject: RE: Following up on Salado Creek and Del Puerto Creek Maintenance Projects
Date: Thursday, March 21, 2013 8:14:35 AM

Greetings and Good Morn-thanks for the email. This is not within our aboriginal territory, please contact Kathy Perez, as she is the contact for this area. At this time we do not have any concerns and we defer to Kathy.

Reba fuller
Governmental Affairs Specialist
Tuolumne Band of Me-Wuk Indians

From: Pierce, Wendy@DWR [mailto:Wendy.Pierce@water.ca.gov]
Sent: Wednesday, March 20, 2013 3:08 PM
To: rfuller@mlode.com
Subject: Following up on Salado Creek and Del Puerto Creek Maintenance Projects

Dear Ms. Fuller,

This email is a follow-up to project notification letters sent out on October 18, 2012 for the Salado Creek Channel Maintenance Project and on November 14, 2012 for the Del Puerto Creek Sediment Removal Project. Both projects are located near Patterson, in Stanislaus County, California. One of the spoils areas is held in common to both projects. These project areas were both subjected to pedestrian survey and the results were negative for cultural resources.

For the Salado Creek Channel Maintenance Project, the California Department of Water Resources (DWR) is proposing to remove sediment and vegetation from the Salado Creek channel, re-establish access roads to the site, and deposit spoils at three potential spoils locations. The Area of Potential Effects (APE) includes three areas, the sediment and vegetation removal and the southern spoils site at the intersection of Salado Creek and the California Aqueduct, and two additional spoils locations approximately one half and one mile to the northwest on the east side of the aqueduct (Salado Creek Figure 1). The total project area is approximately 2.2 acres. The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle and within Sections 1, 2, and 12, Township 6S, Range 7E.

For the Del Puerto Creek Sediment Removal Project, DWR is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate location. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils site is located southeast of the project at post mile 41.5 (Del Puerto Creek Figure 1). The total project area is approximately 0.3 acres. The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle and within Section 21, Township 5S, Range 7E. The spoils site is located within Section 2, Township 6S, Range.

The early identification of heritage sites (including plant collection locations) within the project area will insure their consideration prior to start of construction. If any heritage sites are located within the proposed project area, please notify us by sending a response to the address provided below, or by calling or e-mailing me at the number provided below.

Sincerely,

Wendy Pierce, M.A.

Associate Environmental Planner – Archeology
Environmental Compliance & Evaluation Branch
Division of Environmental Services
California Department of Water Resources
Phone (916) 376-9792
Fax (916) 376-9692

Department of Water Resources
ARCHAEOLOGICAL SURVEY REPORT

ATTACHMENT 4:

HISTORICAL SOCIETY CONSULTATION

DEPARTMENT OF WATER RESOURCES

DIVISION OF ENVIRONMENTAL SERVICES
3500 INDUSTRIAL BOULEVARD
WEST SACRAMENTO, CA 95691



October 11, 2012

McHenry Museum & Historical Society
1402 I Street
Modesto, CA 95354

Dear Historical Society Members:

The California Department of Water Resources (DWR) is proposing to remove sediment from Del Puerto Creek, apply rip-rap to stabilize the bank, re-establish a driveway to access the site, and deposit spoils at a separate spoils location as part of the Del Puerto Creek Sediment Removal Project. The Area of Potential Effects (APE) includes two areas, the sediment removal site at the intersection of Del Puerto Creek at the west side of the California Aqueduct, and the spoils deposit site located southeast of the project at post mile 41.5 (Figure 1). The total project area is approximately 0.3 acres.

The project is located near the town of Patterson, California in Stanislaus County. The APE is within the Patterson 7.5' United States Geographical Survey (USGS) topographic quadrangle. The project site is, furthermore, located within Section 21, Township 5S, Range 7E and the spoils site is located within Section 2, Township 6S, Range 7E.

Please notify me of any historic-era resources within or in close proximity to the defined project area. Early identification of historic-era resources will ensure their consideration during the project planning phase. Your response may be sent to me at the address provided above, or you may fax the information to (916) 376-9688. Please contact me at (916) 376-9792 or at wpierce@water.ca.gov if you have any questions regarding this request. If we do not receive a response to this inquiry within 30 days, it will be assumed that you are not aware of any historic-era resources within the project area.

Thank you for giving this matter your prompt attention.

Sincerely,

Wendy Pierce
Associate Environmental Planner-Archeology
Office (916) 376-9792
Fax (916) 376-9688

Attachments (1)

OFFICE MEMO

TO: Sarah Fredericks Environmental Scientist	DATE: December 12, 2014
FROM: Wendy Pierce Associate Environmental Planner- Archeology	SUBJECT Del Puerto Creek Sediment Removal Project

This memo is a supplement to the *Archaeological Survey Report for the Del Puerto Creek Sediment Removal Project, Stanislaus County, California* (Pierce 2013). The record search for the original Archaeological Survey Report was conducted on October 17, 2012 by the staff of the Central California Information Center of the California Historical Resources Information System (CHRIS) at California State University, Stanislaus (see Attachment 1 in Pierce 2013). The search encompassed a ¼-mile radius around the project area.

The United States Army Corps of Engineers (USACE), Sacramento District, Regulatory Division requires a record search that is no less than a year old when applying for a 404 Clean Water Permit (USACE 2014). In accordance with the USACE Section 106 guidance, DWR requested a record search update to check if any new cultural resources or surveys had been reported after the date of the original record search CCIC File #8395 N.

The CCIC completed the updated search on December 4, 2014. They reported that there had been no new resources recorded in the project area or within a quarter mile of the project area (see Attachment 1). They also reported one old survey that had crossed the project area not reported in the original record search results. However, that information was given to the CCIC by Wendy Pierce in 2013 and is included in the original 2013 report under the Additional Research heading on page 9.

References Cited

Pierce, Wendy

2013 *Archaeological Survey Report for the Del Puerto Creek Sediment Removal Project, Stanislaus County, California*. On File at DWR, Division of Environmental Services, West Sacramento.

USACE

2014 *Guidelines for Compliance with Section 106 of the National Historic Preservation Act March 24, 2014*. The United States Army Corps of Engineers, Sacramento District, Regulatory Division.
http://www.spk.usace.army.mil/Portals/12/documents/regulatory/sec-106-tribal/FINAL_2014-03-24_Section-106-Guidelines.pdf Accessed on December 9, 2014.

Attachment 1
NCIC Record Search Update to #8395N



CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307 - FAX (209) 667-3324

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 12/4/2014

Records Search File No.: 9175N (update to #8395N)

Re: Project: Del Puerto Creek Sediment Removal Project

Ref. : DWR Standard Agreement #460009770; Account #C2346A-20004

Access and Use Agreement No.: 88

Wendy Pierce
California Dept. of Water Resources (DWR)
Division of Environmental Services
3500 Industrial Blvd.
West Sacramento, CA 95691

The Central California Information Center received your record search (update) request for the project area referenced above, located on the Patterson USGS 7.5' quadrangle in Stanislaus County. The following reflects the results of the records search (update) for the project area and a ¼-mile radius:

As per data currently available at the CCalC, the locations of resources and reports are provided in the following format: custom GIS maps shapefiles hand-drawn maps

Summary Data (update/new information only):

Resources within project area:	Update: no others reported subsequent to prev. search
Resources within ¼-mile radius:	Update: no others reported
Reports within project area:	Update: One other, mistakenly omitted from prev. search
Reports within ¼-mile radius:	Update: no others reported

Resource Database Printout (list): enclosed not requested nothing listed*

Resource Database Printout (details): enclosed not requested nothing listed*

Resource Digital Database Records: enclosed not requested nothing listed*

Report Database Printout (list): (see below*) enclosed not requested nothing listed

Report Database Printout (details): enclosed not requested nothing listed

*Detail printout (rather than List) attached for the one additional report.

Report Digital Database Records: (see below*) enclosed not requested nothing listed

*hardcopy attached instead, as there was only the one report.

Resource Record Copies: enclosed not requested nothing listed*

Report Copies: (one report) enclosed not requested nothing listed

OHP Historic Properties Directory: (new): enclosed not requested nothing listed

Archaeological Determinations of Eligibility: enclosed not requested nothing listed

CA Inventory of Historic Resources (1976): enclosed not requested nothing listed

Caltrans Bridge Survey: enclosed not requested nothing listed

Ethnographic Information: enclosed not requested nothing listed

Historical Literature: enclosed not requested nothing listed

Historical Maps: enclosed not requested nothing listed

Local Inventories: enclosed not requested nothing listed

GLO and/or Rancho Plat Maps: enclosed not requested nothing listed

The following details the results of the records search:

Prehistoric or historic resources within the project area:

- (1) No prehistoric or historic archaeological resources have been reported to the CCalC subsequent to the previous search.
- (2) No new recordings of the California Aqueduct have been received for this area. The Aqueduct also still does not have an entry on the latest HPDF printout available.

Prehistoric or historic resources within a one-quarter- mile radius of the project area:

- (1) No prehistoric or historic archaeological resources have been reported to the CCalC subsequent to the previous search.
- (2) No new field recordings of the Delta-Mendota Canal have been received for this area. Copies of the more recent HPDF printout pages are attached for this resource (OHP still has not sorted out the mix-up on the Merced and San Joaquin County directory pages): Stanislaus Co., page 35; Merced Co., pages 35-36; San Joaquin Co., pages 76-77.

We do have a partial copy of the following: *Draft: California's Central Valley Project: Historic Engineering Features to 1956: A Multiple Property Documentation Form, June 2007 (National Register of Historic Places Nomination)*; it is filed as report #ME-7779. However, Bureau of Reclamation states this report/form has been superseded by another, which we do not have on file. The latest information relayed to us is that this also is still in Draft form, and it is *not* currently being reviewed by the Keeper of the Register.

Resources known to have value to local cultural groups:

None have been formally reported to the CCalC.

Previous investigations within the project area:

- (1) One additional study; omitted by mistake from the previous record search for this project; hardcopy of report and Report Database detail printout is attached (the report should be on file with DWR, but we did not know if you had quick access to a copy):

CCaIC report #	Author/Date
ST-1838	Bell, Barter, Rivers, and Gray (1993)

- (2) Correction to one of the previous records search maps showing Investigations: there are two references to a study #ST-623. These should read ST-621 (Moratto et al., 1995).

Previous investigations within a one-quarter mile radius of the project area:

None have been reported to the CCalC subsequent to the previous search, except that we obtained the partial copy of the 2007 Draft NRHP nomination form for the CVP (including the Delta-Mendota Canal); we found it online. You may be able to obtain a copy of the *newer* draft form from BUR (it is not clear whether they want it distributed or not at this time).

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately by our Financial Services office* (\$183.71), payable within 60 days of receipt of the invoice.

Sincerely,



Robin Hards, Assistant Research Technician
Central California Information Center
California Historical Resources Information System

Appendix C:

Print Form

DWR GHG Emissions Reduction Plan Consistency Determination Form For Projects Using Only DWR Staff and Equipment



This form is to be used by DWR project managers to document a DWR CEQA project's consistency with the DWR Greenhouse Gas Emissions Reduction Plan. This form is to be used only when DWR is the Lead Agency and when only DWR staff and equipment are used to implement the project.

California Department of Water Resources
1416 9th Street
Sacramento, CA
95814
dwrclimatechange.water.ca.gov
www.water.ca.gov/climatechange

Additional Guidance on filling out this form can be found at:
dwrclimatechange.water.ca.gov/guidance_resources.cfm

The DWR Greenhouse Gas Emissions Reduction Plan can be accessed at:
<http://www.water.ca.gov/climatechange/CAP.cfm>

Project Name:	Del Puerto Creek Sediment Removal Project
Environmental Document type:	Mitigated Negative Declaration
Manager's Name:	Jerry Snow
Manager's email:	Gerald.Snow@water.ca.gov
Division:	Division of Operations and Maintenance
Office, Branch, or Field Division	Delta Field Division

Short Project Description:

Del Puerto Creek runs under the California Aqueduct via an underchute structure (underchute) just north of Patterson, CA in Stanislaus County, Patterson 7.5 minute USGS quadrangle. Over the past 10+ years, cobble and debris has built up within the upstream portion of the creek, above the height of the underchute. The proposed project includes the removal of silt/cobble from the creek within 200 feet of the underchute. Vegetation along the creek embankments will be removed and riprap will be placed for bank stabilization within 200 feet of the underchute. A rocked drain that runs into the creek will be repaired using cobble from the creek, and existing access roads will be graded and aggregate base will be placed to improve access to the project site. The project utilizes an existing spoil site south of Patterson along the California Aqueduct between milepost 41.0 and 41.5.

Project GHG Emissions Summary

All emissions from the project will occur as ongoing operational, maintenance, or business activity emissions and therefore have already been accounted for and analyzed in the GGERP. (This box must be checked if you are using this form. If you cannot check this box you must use the form at this [link](#))

Project GHG Reduction Plan Checklist

- All Project Level GHG Emissions Reduction Measures have been incorporated into the design or implementation plan for the project. ([Project Level GHG Emissions Reduction Measures](#))
- Or
- All feasible Project Level GHG Emissions Reduction Measures have been incorporated into the design or implementation plan for the project and Measures not incorporated have been listed and determined not to apply to the proposed project (include as an attachment)

Project does not conflict with any of the Specific Action GHG Emissions Reduction Measures
([Specific Action GHG Emissions Reduction Measures](#))

Would implementation of the project result in additional energy demands on the SWP system of 15 GWh/yr or greater?
 Yes No
If you answered Yes, attach a Renewable Power Procurement Plan update approval letter from the DWR SWP Power and Risk Office.

Is there substantial evidence that the effects of the proposed project may be cumulatively considerable notwithstanding the proposed project's compliance with the requirements of the DWR GHG Reduction Plan?
 Yes No
If you answered Yes, the project is not eligible for streamlined analysis of GHG emissions using the DWR GHG Emissions Reduction Plan. (See CEQA Guidelines, section 15183.5, subdivision (b)(2).)

Based on the information provided above and information provided in associated environmental documentation completed pursuant to the above referenced project, the DWR CEQA Climate Change Committee has determined that the proposed project is consistent with the DWR Greenhouse Gas Reduction Plan and the greenhouse gasses emitted by the project are covered by the plan's analysis.

Project Manager Signature:		Date: <input type="text" value="1-7-15"/>
C4 Approval Signature:		Date: <input type="text" value="1/16/15"/>

Attachments:

- List and Explanation of excluded Project Level GHG Emissions Reduction Measures
- Plan to update Renewable Energy Procurement Plan from DWR SWP Power and Risk Office

**DWR GHG EMISSIONS REDUCTION PLAN CONSISTENCY DETERMINATION FORM:
EXPLANATION OF EXCLUDED PROJECT LEVEL GHG
EMISSIONS REDUCTION MEASURES**

The Department of Water Resources (DWR) Green House gas (GHG) Emissions Reduction Plan Consistency Determination Form required that all feasible Project Level GHG Emissions Reduction Measures are incorporated into the design or implementation plan for the project. All Measures not incorporated must be listed with an explanation as to why the Measures were excluded from the project plan.

The following Pre-Construction and Final Design and Construction BMPs are not included in the Del Puerto Creek Sediment Removal Project for the following reasons:

BMP 3. Ensure that all feasible avenues have been explored for providing an electrical service drop to the construction site for temporary construction power. When generators must be used, use alternative fuels, such as propane or solar, to power generators to the maximum extent feasible.

- The proposed project will not utilize temporary construction power. All equipment will run off of diesel or gas. No generators will be used.

BMP 4. Evaluate the feasibility and efficacy of producing concrete on-site and specify that batch plants be set up on-site or as close to the site as possible.

- The proposed project does not include the use of concrete.

BMP 5. Evaluate the performance requirements for concrete used on the project and specify concrete mix designs that minimize GHG emissions from cement production and curing while preserving all required performance characteristics.

- The proposed project does not include the use of concrete or cement.

BMP 11. Reduce electricity use in temporary construction offices by using high efficiency lighting and requiring that heating and cooling units be Energy Star compliant. Require that all contractors develop and implement procedures for turning off computers, lights, air conditioners, heaters, and other equipment each day at close of business.

- The proposed project will not need to use a temporary construction office.

BMP 12. For deliveries to project sites where the haul distance exceeds 100 miles and a heavy duty class 7 or class 8 semi-truck or 53-foot or longer box type trailer is used for hauling, a SmartWay certified truck will be used to the maximum extent feasible.

- Materials transported to the proposed project site will not exceed a haul distance of 100 miles.

BMP 13. Minimize the amount of cement in concrete by specifying higher levels of cementitious material alternatives, larger aggregate, longer final set times, or lower maximum strength where appropriate.

- The proposed project does not include the use of concrete or cement.