Visalia Median Barriers

On State Route 198 in the City of Visalia north of the Visalia Airport, and from Akers Street to 0.2 mile east of County Center Drive
06-TUL198-PM R4.2/R4.9 and PM 6.8/8.3
Project No. 06-1400-0001 EA 06-0R050

Initial Study
with Proposed Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

January 2015

General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in Tulare County, California. The document describes the project, the existing environment that could be affected by the project, potential impacts from the project, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the Caltrans district office at 1352 West Olive Avenue, Fresno, California 93728. These documents can also be read at the Tulare County Library, Visalia Branch (Main Library), 200 West Oak Avenue, Visalia, California 93291. The document can also be accessed electronically at the following website: http://www.dot.ca.gov/dist6/environmental/envdocs/d6/
- We welcome your comments. If you have any concerns about the project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

  Michelle Ray, Senior Environmental Planner
  Sierra Pacific Environmental Analysis Branch
  California Department of Transportation
  855 M Street, Suite 200
  Fresno, CA 93721

- Submit comments via email to: Michelle.Ray@dot.ca.gov
- Submit comments by the deadline: March 5, 2015

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and build all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Michelle Ray, Senior Environmental Planner, Division of Environmental Analysis, California Department of Transportation, 855 M Street, Suite 200, Fresno, CA 93721; phone (559) 445-5286 (Voice), or use California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice), or 711.

Project Description and Background:

Note: *Pursuant to (State) Division 13, California Public Resources Code*—This project documentation has been prepared in compliance with the California Environmental Quality Act (CEQA). A Categorical Exclusion is expected to be signed for National Environmental Policy Act (NEPA) compliance.

Project Title:	Visalia Median Barriers
Lead Agency Name and Address:	California Department of Transportation (Caltrans) 1352 West Olive Avenue, Fresno, CA 93778
Contact Person and Telephone Number:	Michelle Ray (559) 445-5286
Approved By:	**Signature:** Michelle Ray **Date:** 01/12/15 **Title:** Senior Environmental Planner
Project Location:	On State Route 198 north of the Visalia Airport and from Akers Street to 0.2 mile east of County Center Drive
Description of Project:	The California Department of Transportation (Caltrans) proposes to construct median barriers at two locations on State Route 198 in the City of Visalia in Tulare County. A concrete median barrier would be installed at Location 1 for a distance of 0.7 mile from 0.6 mile west of Road 80 to Road 80 (Plaza Drive), (post mile R4.2 to R4.9). High tension cable median barrier would be installed in the freeway median for 2.5 miles at Location 2, from Akers Street to 0.2 mile east of County Center Drive (post mile 6.8 to post mile 8.3). At Location 1, the project would construct approximately 3,700 linear feet of concrete median barrier (Type 60) Twenty-four Type “S” wildlife passageways would be installed approximately every 148 feet along the barrier. In addition, the project would pave the median, widen the inside shoulders to five feet (current standard), upgrade metal beam guardrail and end treatments, modify an existing drainage system, install one vehicle classification station in the pavement, and add ground-in rumble strips on the inside and outside shoulders in both directions of travel. At Location 2, this project would construct approximately 7,920 linear feet of four strand high tension cable median barrier along the existing median, modify two existing vehicle classification stations, install a permanent changeable message sign, upgrade metal beam guardrail and end treatments, and install ground-in rumble strips on

	the inside and outside shoulders in both directions of travel. Typical Cross Sections of the median barriers are shown in Appendix A. An example of a four strand high tension cable median barrier is depicted in Appendix B. Photos of the project area are shown in Appendix C. The purpose of this project is to prevent errant vehicles from crossing the freeway median and hitting oncoming vehicles. This is a safety project. All work will be within Caltrans right of way. Construction is planned to begin in early April 2017 and to be completed in early June 2017. Construction is expected to take approximately 50 days to complete. At Location 1; lane closures would be needed for grading and paving the median and for the concrete barrier construction for most of the project duration. At Location 2, intermittent lane closures of one or two days may be required. However, because lane closures are not allowed when the traffic volume is beyond the capacity of the remaining lanes, during daytime hours, intermittent nightime work is anticipated for most of the project duration.
Surrounding Land Uses and Setting:	Location 1 is adjacent to the Visalia Airport on the south side and highway commercial businesses near Plaza Drive. On the north side of the freeway are vacant lots and a few businesses. Location 2 is mostly the below grade area of the freeway in the middle of the city. Surrounding land uses are urban: residential, commercial, and governmental..
Other Public Agencies Whose Approval is Required:	Section 7 informal consultation is being requested from the U.S. Fish and Wildlife Service regarding San Joaquin kit fox.

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this proposed project. Please see the CEQA checklist for additional information. Any boxes *not* checked represent issues that were considered as part of the scoping and environmental analysis for the project, but for which no adverse impacts were identified; therefore, no further discussion of those issues are in this document.

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

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to construct median barriers at two locations on State Route 198 in the City of Visalia in Tulare County. A concrete median barrier would be installed at Location 1, which extends from 0.6 mile west of Road 80 to Road 80 (Plaza Drive), from post mile R4.2 to R4.9. High tension cable median barrier would be installed in the freeway median at Location 2, which extends from Akers Street to 0.2 mile east of County Center Drive (from post mile 6.8 to post mile 8.3).

Determination

Draft

This proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision on the project is final. This Mitigated Negative Declaration is subject to change based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons.

The proposed project would have no effect on: agriculture and forest resources, air quality, cultural resources, paleontological resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, and utilities and sewer systems.

In addition, the proposed project would have no significantly adverse effect on aesthetics and biological resources because the following mitigation measures would reduce potential effects to insignificance:

- Aesthetics- Caltrans would either install replacement planting of oak trees within the limits of Location 1 or else would pay in-lieu fees to the City of Visalia (or designee) to mitigate for removing one valley oak tree (21 inches in diameter at breast height) and two non-native ash trees.
- San Joaquin kit fox- Standard special provisions would be included in the construction contract in order to minimize potential impacts to San Joaquin kit fox.

_____ _____

Michelle Ray
Senior Environmental Planner
California Department of Transportation
District 6

Date

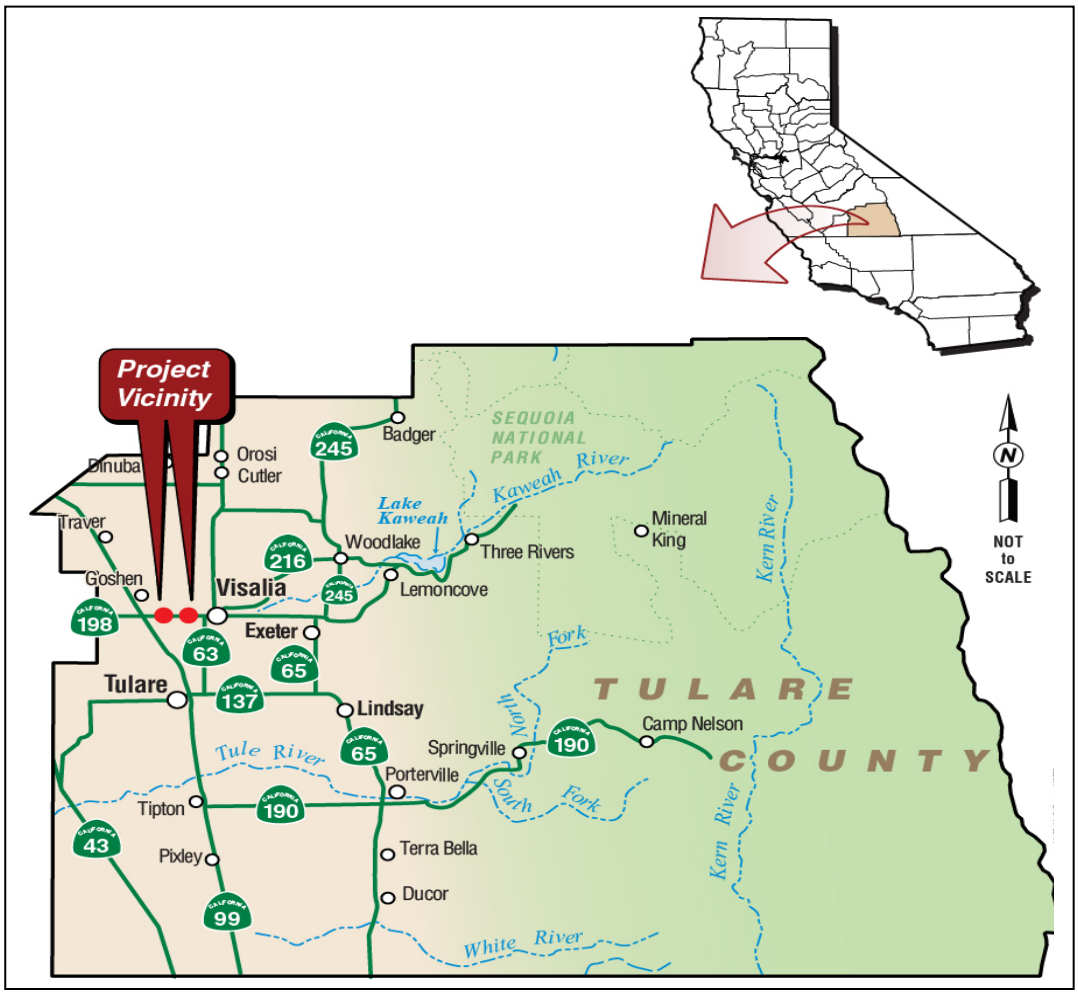


Figure 1-1 Project Vicinity Map

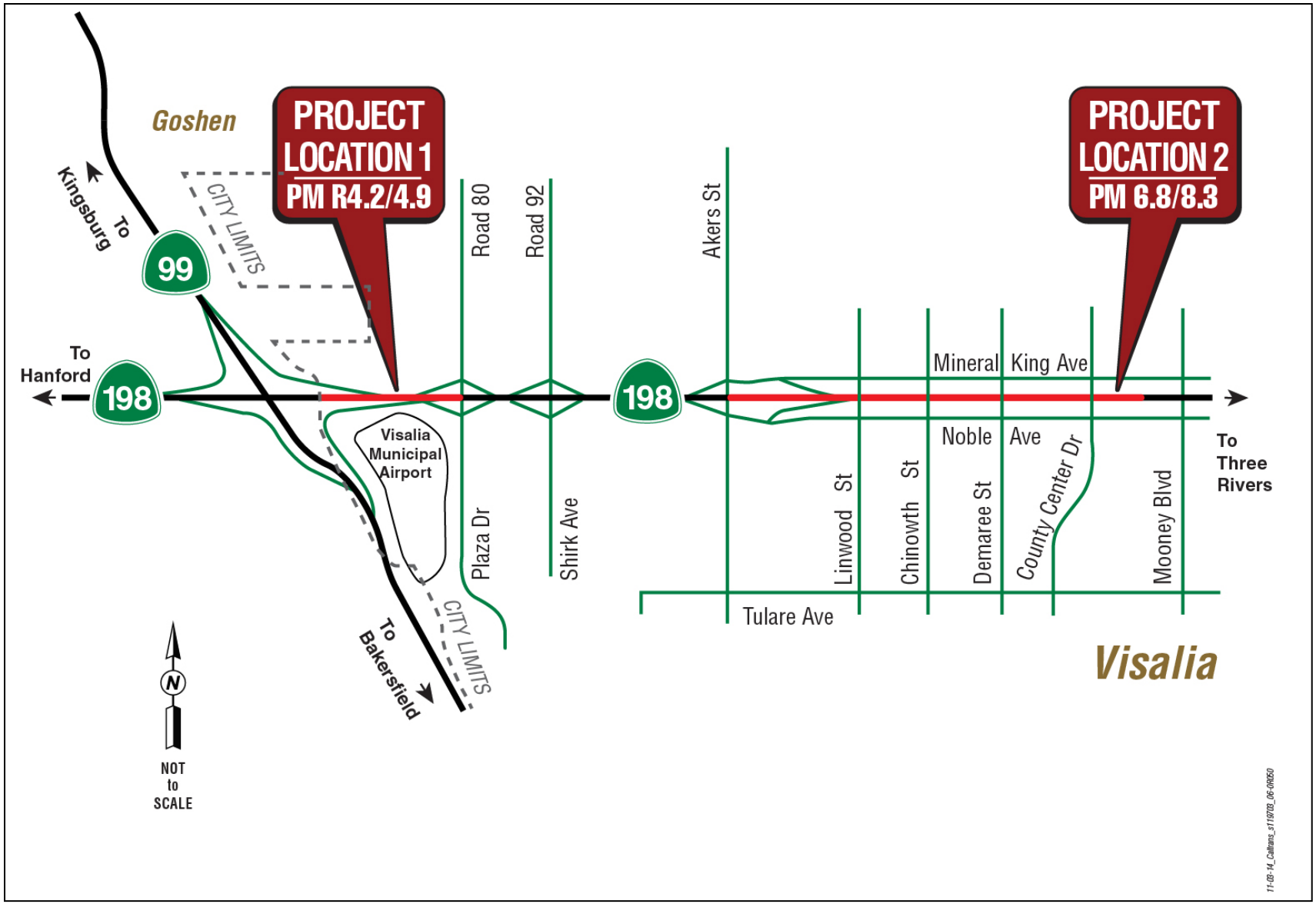


Figure 1-2 Project Location Map

CEQA Environmental Checklist

06-TUL-198	R4.2/R4.9 and 6.8/8.3	06-1400-0001
Dist.-Co.-Rte.	P.M/P.M.	Project ID#

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicated no impacts. A NO IMPACT answer in the last column reflects this determination. Where a clarifying discussion is needed, the discussion either follows the applicable section in the checklist or is placed within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA—not NEPA—impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

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

See **Additional Explanations for Questions in the Impacts Checklist** that follows this checklist.

II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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, Forest Legacy Assessment Project, and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
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))?	☐	☐	☐	X
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	X
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?	☐	☐	☐	X
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	X
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)?	☐	☐	☐	X
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	X
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	X
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 Wildlife or U.S. Fish and Wildlife Service?	☐	X	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	X
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?	☐	☐	☐	X
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?	☐	☐	☐	X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	X	☐	☐

See **Aesthetics** in **Additional Explanations for Questions in the Impacts Checklist** that follows this checklist regarding the Visalia Oak Tree ordinance.

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

See **Additional Explanations for Questions in the Impacts Checklist** that follows this checklist for discussion of threatened and endangered species.

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	X
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	X

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking?	☐	☐	☐	X
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	X
iv) Landslides?	☐	☐	☐	X
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	X
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?	☐	☐	☐	X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	X
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?	☐	☐	☐	X

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?

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

If applicable, an assessment of greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project.

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?	☐	☐	☐	X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	X

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	X
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?	☐	☐	☐	X
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?	☐	☐	☐	X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	X
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?	☐	☐	☐	X

IX. HYDROLOGY AND WATER QUALITY: Would the project:

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	X
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	X
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	X
f) Otherwise substantially degrade water quality?	☐	☐	☐	X
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?	☐	☐	☐	X

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	X
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?	☐	☐	☐	X
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	X

See **Additional Explanations for Questions in the Impacts Checklist** that follows this checklist for discussion of the floodplain.

X. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?	☐	☐	☐	X
b)Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	X

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?	☐	☐	☐	X
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?	☐	☐	☐	X

XII. NOISE: Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X
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?	☐	☐	☐	X

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)?	☐	☐	☐	X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X

XIV. PUBLIC SERVICES:

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	X
Fire protection?	☐	☐	☐	X
Police protection?	☐	☐	☐	X
Schools?	☐	☐	☐	X
Parks?	☐	☐	☐	X
Other public facilities?	☐	☐	☐	X

XV. RECREATION:

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

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?	☐	☐	☐	X
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?	☐	☐	☐	X
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?	☐	☐	☐	X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	X
e) Result in inadequate emergency access?	☐	☐	☐	X
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?	☐	☐	☐	X

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	X

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	X

Additional Explanations for Questions in the Impacts Checklist

I. Aesthetics (checklist question c, and question IV.e)

Affected Environment

A Visual Impact Assessment was completed for this project in January 2015.The assessment followed the guidance outlined in the publication Visual Impact Assessment for Highway Projects issued by the Federal Highway Administration in March 1981.

Visual impacts are determined by identifying visual resources in the project area, determining the amount of change that would occur as a result of the project, and predicting how the affected public would respond to or perceive those changes.

The project location and setting provide the context for determining the type of changes to the existing visual environment.

At Location 1, the freeway is for the most part at grade throughout the project limits. The 32-foot wide median is unpaved and unimproved. No median barrier separating opposing traffic exists at this location. Outside of the edge of the traveled way, along the roadside in both directions are numerous oak trees and other plantings. The land use is mostly rural or agricultural, and includes a few scattered light industrial businesses. Visalia Municipal Airport is located just south of State Route 198 and east of State Route 99.

At Location 2, the freeway is located in an urban area, and is below grade except near Akers Street. The 60-foot wide median is unpaved and does not include a median barrier. The surrounding land uses include commercial, residential, and light industrial businesses. Highway planting, trees, shrubs, and groundcover exists along the freeway within most of the project limits at this location beyond the edge of the traveled way. No planting exists within the median.

Viewers include highway users while they are traveling on the freeway in either direction within the project limits.

VISUAL RESOURCES AND RESOURCE CHANGE

Visual resources of the project setting were defined and identified by assessing visual character and visual quality in the project corridor.

Visual resources at Location 1 include three trees in the median and numerous trees beyond the edge of traveled way on both side of the freeway. The three median trees are approximately 35 feet in height. The location, diameter at breast height and species of trees to be removed are:

- post mile 4.28 - one valley oak tree of 21 inches in diameter at breast height
- post mile 4.38 - one ash tree of 21 inches in diameter at breast height

- post mile 4.53 - one ash tree of 23 inches in diameter at breast height

The removal of the median trees is expected to have a low to moderate effect on the visual character and quality of Location 1.

At Location 2, the addition of the high tension cable barrier, a changeable message sign, and other improvements are not expected to affect the visual character or visual quality.

Resource change is assessed by evaluating the visual character and the visual quality of the visual resources that comprise the project corridor before and after the construction of the proposed project.

At Location 1, the installation of a concrete median barrier will likely create a more urban look within the project limits. Application of an aesthetic treatment such as stain or texture to the barrier would soften the urban look of the barrier.

Removal of the three median trees will affect this existing visual resource. However, removal of the trees will not create an environment devoid of vegetation in the project limits as numerous mature trees exist beyond the edge of traveled way in both directions within the project limits.

At Location 2, the land use is urban within the project limits. The freeway dips below grade just east of Akers Road. Visual resources include textured retaining walls and highway planting within the project limits.

The addition of the high tension cable barrier, changeable message sign, and other improvements is not expected to change the visual environment.

VIEW AND VIEWER RESPONSE

The viewers at Location 1 and 2 are the highway travelers who have views from the road.

At Location 1, a low to moderate viewer response may occur due to the proposed removal of three mature trees in the existing median at the westerly entrance to the City of Visalia. Installation of a Type 60 concrete median barrier may cause a low to moderate visual change, although adding aesthetic treatment may soften the urban look. Along California highways, median barriers are not unexpected installations.

At Location 2, no negative viewer response is expected to the installation of high tension cable barrier, changeable message sign, and other improvements at this location. The facility is in an urbanized area and the proposed improvements are expected elements to highway travelers.

State Route 198 is listed as Eligible Scenic in the State of California Streets and Highways Code within the project limits, but it has not yet been officially designated as a Scenic Highway. Special consideration must be given to protecting the visual

environment of the corridor, and providing replacement planting within the corridor when feasible. Oak trees are considered scenic resources by the City of Visalia.

At Location 1, highway users will likely notice installation of the concrete barrier more than the removal of the trees. Concrete median barriers are not unexpected along freeways.

At Location 2, although highway users would notice the addition of a median barrier it would not be unexpected in this urban environment.

Although the removal of the trees will be visually noticeable, the public is less likely to be concerned about this if additional trees are planted in the corridor. The traveling public is likely to be aware that median barriers can improve safety and mobility for highway travelers, which may also lessen viewer's potential objections to the change in the quality of the view.

Environmental Consequences

Although State Route 198 is eligible to be a state scenic highway it has not yet been officially designated as such.

The City of Visalia Oak Tree Mitigation Policy, issued in 2007, provides guidance on protecting and preserving valley oak trees within the city limits.

Two options for replacement planting for removal of one valley oak tree and two ash trees have been identified by Caltrans landscape architects in consultation with the Urban Tree Foundation of Visalia. The first option would be to find areas in Caltrans right of way within the limits of Location 1 with enough space to plant more trees. This option would minimize the visual impacts caused by the project at Location 1.

The Urban Tree Foundation recommended that the non-native ash trees be replaced with native oak trees, and Caltrans Landscape Architecture agreed.

If suitable locations for tree planting are not identified in the vicinity of the project, the other option is to pay the City of Visalia, or designee, the value of each tree removed, the money being earmarked for the planting and establishment of oak trees.

Caltrans Landscape Architecture uses the International Society of Arboriculture standards to calculate tree replacement values. This evaluation results in a higher dollar valuation than is required by the City of Visalia Oak Tree Mitigation Policy formula. The replacement value was determined to be $12,000 for the 21-inch diameter at breast height valley oak, $2,500 for the 21-inch diameter at breast height ash tree, and $3,000 for the 23-inch diameter at breast height ash tree.

The second option would increase the number of oak trees in the community but would not minimize visual impacts in the immediate vicinity of the project.

In addition, Caltrans Landscape Architecture has recommended implementing an aesthetic treatment to the concrete median barrier consistent with community

identification themes generated by the community on recent State Route 198 highway improvement projects. The median aesthetic would be designed and implemented with the agreement of the District 6 Landscape Architect, community advocates, and the City of Visalia.

Avoidance, Minimization, and/or Mitigation Measures

This project would either:

- install replacement planting of oak trees within the project limits at Location 1
- or Caltrans would pay in-lieu fees to the City of Visalia or designee for mitigation for tree removal

Caltrans Landscape Architecture will confer with the City of Visalia during the Plans, Specifications, and Estimates phase of the project to determine possible options for aesthetic treatments on the concrete barrier.

IV. Biological Resources (checklist question a)

Threatened and Endangered Species

Affected Environment

A Natural Environment Study (Minimal Impacts) was completed for this project in January 2015.

Federal, State of California and California Native Plant Society species lists are located in Appendix D. Caltrans' Federal Endangered Species Act determinations are listed in Appendix E.

Two special status species are assumed to occur in or near the proposed project, the San Joaquin kit fox and Swainson's hawk.

Caltrans will informally consult with the U.S. Fish and Wildlife Service regarding San Joaquin kit fox prior to completion of the final environmental document for this project.

San Joaquin kit fox (*Vulpes macrotis mutica*)

The San Joaquin kit fox is a federally endangered and state threatened species. The San Joaquin kit fox is the smallest fox in North America, with an average body length of 20 inches and weight of about five pounds. They have large ears that are set close together, a slim body, and a long, bushy, black-tipped tail that is carried low and straight. Their coat ranges from a buff tan during summer months to a silver-gray in the winter.

San Joaquin kit foxes are active year-round and inhabit grassland, scrubland, oak woodland, alkali sink scrubland, vernal pool, and alkali meadow communities. They are present, but generally less abundant, in agricultural landscapes such as row crops, irrigated pastures, orchards, and vineyards. These foxes require underground dens for

temperature regulation, shelter, predator avoidance, and reproduction. San Joaquin kit foxes typically dig their own dens located in loose soils on slopes less than 40 degrees, but also commonly modify existing burrows. They have also been known to use human-made structures (culverts or abandoned pipelines) as den sites.

No potential denning or foraging habitat for San Joaquin kit fox exists within the median of State Route 198 west of Road 80 (Plaza Drive). Location 1 could provide a potential crossing for these foxes.

California Natural Diversity Database records indicate sightings of San Joaquin kit fox in the Visalia-Goshen area, within approximately 4 miles of Location 1, but these records are from 1975. Caltrans biologists performed spotlighting surveys for San Joaquin kit fox within 2 miles of Location 1 in 2000 and 2014. The 2000 survey detected three occurrences of San Joaquin kit fox approximately 1.5 miles north and 1.75 miles northeast of the project area. No San Joaquin kit foxes were detected during the six spotlighting surveys performed for this project in 2014, but three sightings of grey foxes (*Urocyon cinereoargenteus*) were observed in the same general area as the 2000 San Joaquin kit fox sightings.

No San Joaquin kit fox were observed in the Location 1 project area during the reconnaissance survey on November 6, 2014 or the spotlighting surveys conducted in August 2014. No signs of tracks, scat, or road kill were observed during surveys, nor is there a history of sightings or road kill at this location.

Well-maintained chain link fences are located both along the edge of the Visalia Municipal Airport property on the south side of the highway, and along the edge of right-of-way on the north side. Although San Joaquin kit fox could burrow under such a fence, the fence does impede the movement of wildlife across the highway corridor at the project site.

Due to the completely urban setting and lack of documented occurrences no San Joaquin kit fox spotlighting surveys were performed in and around the area of Location 2.

Swainson's hawk (*Buteo swainsoni*)

Swainson's hawk, a state threatened species, is a summer migrant in the Central and Sacramento Valley, Klamath Basin, northeastern Plateau, and Lassen, Kern, Mono, and Inyo Counties. Individuals migrate north to California in March through May and return to South America in September through October.

The Swainson's hawk breed and forage in large expanses of grasslands and agricultural lands, including alfalfa fields. They nest in tall trees such as oaks, cottonwoods, walnuts, and willows, usually near rivers or streams adjacent to their foraging areas. They usually prey on small mammals (especially voles), lizards, birds, and insects. Formerly abundant in California, their population has declined due to loss of nesting and foraging habitat.

California Natural Diversity Database records indicate Swainson's hawks were nesting at several locations along State Route 198 in 2012, the nearest being approximately 2.5 miles west of the project site. No Swainson's hawks were observed in the project area during the reconnaissance survey on November 6, 2014. Potential nest trees are present along the edge of Caltrans right-of-way on State Route 198 at Location 1, and open fields that could provide suitable foraging habitat are located just north of State Route 198.

Environmental Consequences

San Joaquin kit fox (*Vulpes macrotis mutica*)

The new concrete median barrier would be continuous throughout the length of Location 1. Twenty-four Type "S" wildlife passages would be installed approximately every 148 feet along the barrier. The Type "S" passage is a 9-inch radius semi-circular hole drilled through the base of the concrete barrier, large enough to allow the passage of a San Joaquin kit fox and other small animals. Installing the passages would reduce the potential danger to these animals crossing the freeway if they attempted to do so.

Caltrans has determined that, with implemented of avoidance and minimization measures, the proposed project *may affect,* but is *not likely to adversely affect* the San Joaquin kit fox. No habitat would be affected by construction of the proposed project. The concrete median barrier would increase the difficulty for San Joaquin kit fox to cross the highway, however wildlife passages in the median barrier would minimize the increased difficulty, and there is a low potential that San Joaquin kit fox actually would cross the highway at the project site.

Swainson's hawk (*Buteo swainsoni*)

This proposed project is expected to have no effect on Swainson's hawk.

While Swainson's hawks are known to nest in this region, they have not been observed in proximity to the actual project site. Many other trees are located along both sides of the highway in this area and around the Plaza Drive Overcrossing. The removal of the three trees in the median strip would not measurably reduce potential nesting habitat within the project area.

Avoidance, Minimization, and/or Mitigation Measures

San Joaquin kit fox (*Vulpes macrotis mutica*)

- A qualified biologist would conduct pre-construction surveys and ensure that all avoidance measures are being maintained
- If during construction the qualified biologist determines that there is a potential for take of a San Joaquin kit fox, all work would cease immediately until Caltrans initiates consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife.

- Environmental compliance training would be required for all construction personnel.
- All construction-related access must be kept within the project limits and to existing highways and associated paved/graded shoulders, or other designated areas clearly marked on the ground.
- Project-related traffic would be required to observe a 20 mile per hour speed limit except on roads or highways open for public use.
- The contractor will immediately notify the resident engineer if a dead, injured, or entrapped kit fox or a similar animal that is believed to be a kit fox is found. All construction activity within the 150-foot radius of the kit fox will be halted and may not resume until the project biologist is consulted and the resident engineer provides written authorization. Any entrapped kit fox will be permitted to escape. No injured or dead kit fox may be handled or otherwise disturbed.
- If a kit fox den is discovered, all construction activity within the 150-foot radius of the den will be halted and the resident engineer will be contacted immediately. Work will not continue until the resident engineer provides written authorization.
- All food-related trash will be disposed of in closed garbage containers provided by the contractor and the containers will be emptied daily.
- Pets are prohibited on the work site.
- At the end of each working day, the contractor will take measures to prevent the entrapment of kit foxes in all excavated, steep-walled holes or trenches more than or equal to two feet deep. Such measures will include covering excavations with plywood or providing dirt or plank escape ramps from the trenches.
- The contractor will inspect all pipes and culverts with a diameter greater than or equal to 4 inches before burying, capping, or other use. If a kit fox is discovered during this inspection, the pipe or culvert will not be disturbed (other than to move to a safe location if necessary) until after the fox has escaped.
- When night work occurs, an approved San Joaquin kit fox monitor may be onsite during construction activities as determined by the U.S. Fish and Wildlife Service and the Caltrans biologist.

Since no San Joaquin kit fox habitat is being permanently removed as part of the project, no compensatory mitigation is proposed.

Swainson's hawk (*Buteo swainsoni*)

If construction occurs during the nesting season (February 15 to September 1) preconstruction surveys will be conducted within 30 days prior to start of work to determine if Swainson's hawks are nesting within one half mile of the project. If Swainson's hawks are observed nesting within the project site, a 600-foot radius no-work buffer will be designated around the nest tree. The nest tree will be monitored by a qualified biologist during construction activities until the birds have fledged.

IX. Hydrology and Water Quality

Affected Environment

A Location Hydraulic Study was completed for this project in October 2014.

At Location 1 the proposed improvements are within Zone X, that is, outside the floodplain.

At Location 2, the project area from Akers Street to Kent Street falls within Zone X. The project area from Kent Street to the eastern end of the project is within Zone AE, the special flood hazard areas that would be inundated by the 100-year flood (this is in the below grade portion of the freeway).

The base 100-year floodplain is shown in relation to both project locations on the Federal Emergency Management Agency Flood Insurance Rate Maps in Appendix F.

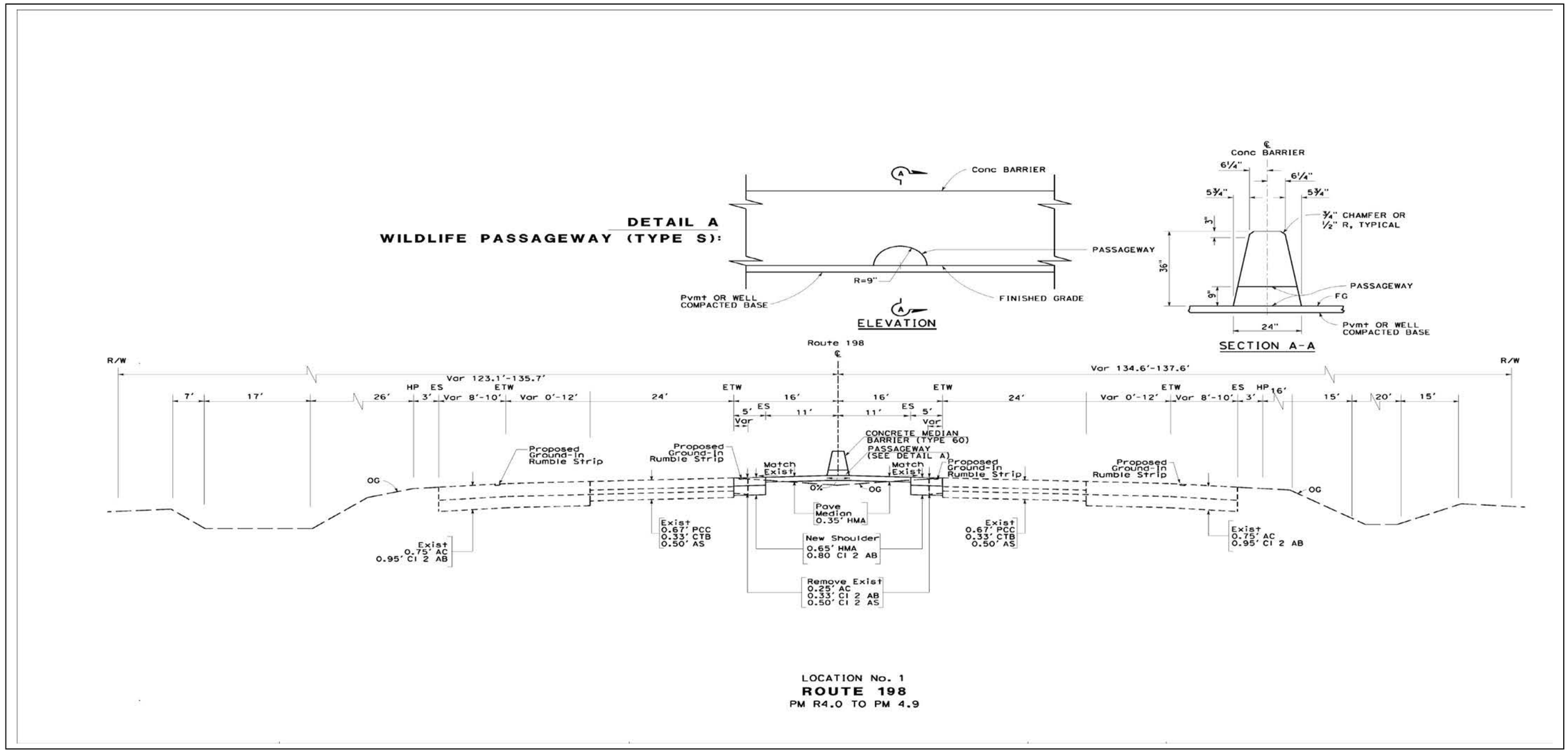
Environmental Consequences

The proposed project will have a longitudinal encroachment into the 100-year floodplain as designated by the Flood Insurance Rate Maps. This encroachment occurs within Location 2 from Kent Street to the eastern project limits approximately 0.2 mile east of County Center Drive Overcrossing. Construction of high tension cable barrier in the median would not create any additional backwater and would allow the normal flood pattern to continue.

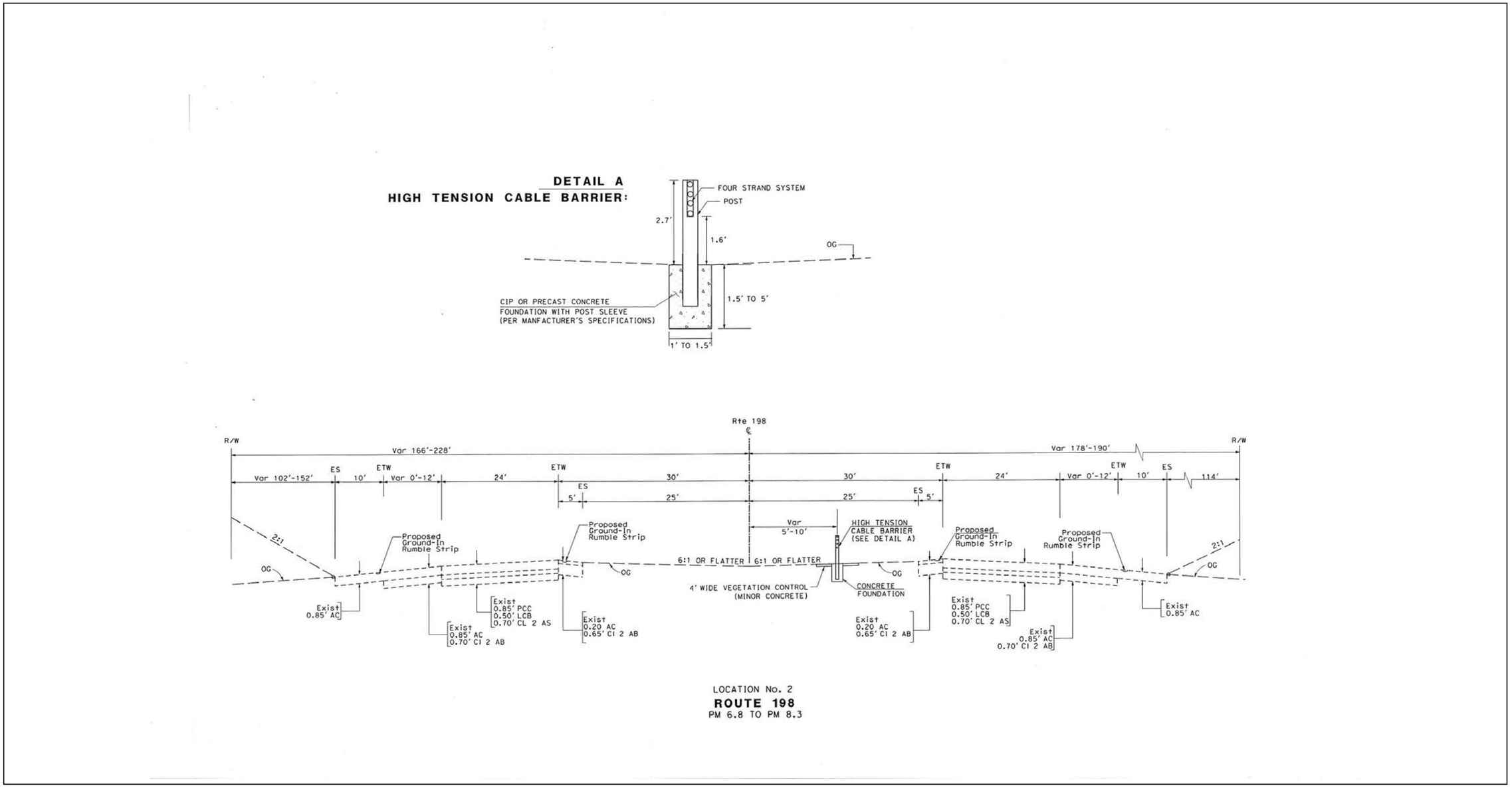
No significant floodplain encroachment has been identified for this project. This proposed project would not cause incompatible floodplain development. This project would not significantly affect the 100-year floodplain.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation measures are proposed because none are needed.



Location 1 Concrete Median Barrier (Type 60)



Location 2 High Tension Cable Median Barrier

Appendix B Example of High Tension Cable Median Barrier with Four Cables

Appendix C Project locations

Location 1 – Typical View

Location 2 – Typical View

Appendix D Federal, State and California Native ……Plant Society Species Lists

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 141112042428

Current as of: November 12, 2014

Quad Lists

Listed Species

Invertebrates

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardi
vernal pool tadpole shrimp (E)

Fish

Hypomesus transpacificus
delta smelt (T)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)

Rana draytonii
California red-legged frog (T)

Reptiles

Gambelia (=Crotaphytus) sila
blunt-nosed leopard lizard (E)

Thamnophis gigas
giant garter snake (T)

Mammals

Dipodomys nitratoides exilis
Fresno kangaroo rat (E)

Dipodomys nitratoides nitratoides
Tipton kangaroo rat (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Quads Containing Listed, Proposed or Candidate Species:

GOSHEN (334C)

VISALIA (334D)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the

California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list.
See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and

compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and

delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be February 10, 2015.

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad is (Goshen (3611934) or Visalia (3611933))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
brittlescale *Atriplex depressa*	PDCHE042L0	None	None	G2	S2	1B.2
California satintail *Imperata brevifolia*	PMPOA3D020	None	None	G3	S3	2B.1
heartscale *Atriplex cordulata var. cordulata*	PDCHE040B0	None	None	G3T2	S2	1B.2
Hopping's blister beetle *Lytta hoppingi*	IICOL4C010	None	None	G1G2	S1S2	
lesser saltscale *Atriplex minuscula*	PDCHE042M0	None	None	G2	S2	1B.1
San Joaquin kit fox *Vulpes macrotis mutica*	AMAJA03041	Endangered	Threatened	G4T2	S2	
subtle orache *Atriplex subtilis*	PDCHE042T0	None	None	G1	S1	1B.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	
Valley Sacaton Grassland *Valley Sacaton Grassland*	CTT42120CA	None	None	G1	S1.1	
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S2S3	
western mastiff bat *Eumops perotis californicus*	AMACD02011	None	None	G5T4	S4	SSC
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
western spadefoot *Spea hammondii*	AAABF02020	None	None	G3	S3	SSC

Record Count: 13

Government Version -- Dated November, 4 2014 -- Biogeographic Data Branch

Report Printed on Wednesday, November 12, 2014

Page 1 of 1

Information Expires 5/4/2015

CNPS California Native Plant Society — Rare and Endangered Plant Inventory

Home | About the Inventory | CNPS Home | Join CNPS | Simple Search | Advanced Search

Plant List

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

Search Criteria
Found in Quad 36119C4

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	1B.2	S2	G3T2
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	1B.1	S2	G2
Atriplex subtilis	subtle orache	Chenopodiaceae	annual herb	1B.2	S1	G1

CNPS California Native Plant Society — Rare and Endangered Plant Inventory

Home | About the Inventory | CNPS Home | Join CNPS | Simple Search | Advanced Search

Plant List

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

Search Criteria
Found in Quad 36119C3

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	1B.2	S2	G2
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	1B.1	S2	G2
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	2B.1	S3	G3

Appendix E Federal Endangered Species Act Determinations

Species	Status (1)	Possible in Which Habitat Type	Acres Habitat Impacts Permanent/ Temporary	Species Impacts Expected After Avoidance and Minimization Measures	FESA Determination
Vernal pool fairy shrimp	FT	Vernal pools	0/0	No, no habitat on site	*No effect.*
Vernal pool tadpole shrimp	FE	Vernal pools	0/0	No, no habitat on site	*No effect.*
Valley elderberry longhorn beetle	FT	Elderberry bushes, usually in riparian areas	0/0	No, no habitat on site	*No effect.*
Delta smelt	FT	Semi-saline aquatic habitat in the Bay Delta region	0/0	No, no habitat on site, not upstream of suitable habitat	*No effect.*
California tiger salamander, central population	FT	Vernal pools in open grasslands and brushy habitats	0/0	No, no habitat on site	*No effect.*
California red-legged frog	FT	Pools, ponds, slow streams and adjacent riparian areas	0/0	No, no habitat on site	*No effect.*
Blunt-nosed leopard lizard	FE, SE, FP	Arid, open alkali desert scrub habitat with low topographic relief.	0/0	No, no habitat on site.	*No effect.*
Giant garter snake	FT	Marshes/aquatic habitats with slow water, & adjacent uplands	0/0	No, no habitat on site	*No effect.*
Fresno kangaroo rat	FE, SE	Alkali desert scrub with flat terrain and sandy loam soils.	0/0	No, no habitat on site	*No effect.*
Tipton kangaroo rat	FE, SE	Valley sink scrub and saltbrush scrub in the Tulare Basin region.	0/0	No, no habitat on site	*No effect.*
San Joaquin kit fox	FE, ST	Project Location 1: No habitat, potential crossing area only.	0/0	Possible. Species not observed but may use site to cross.	*May affect, not likely to adversely affect.*
Note: (1) FE = Federal Endangered; FT = Federal Threatened; SE = State Endangered; ST = State Threatened; FP = Fully Protected					

Appendix F Floodplain Maps

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12 000 from photography dated 1987 or later.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

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Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

~~~ 513 ~~~ Base Flood Elevation line and value; elevation in feet*

(EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)———(A) Cross section line

(23)- - - - -(22) Transect line

87°07'45", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

7°18'00"N 1000-meter Universal Transverse Mercator grid values, zone 11

600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone IV (FIPSZONE 0404), Lambert Conformal Conic projection

DX5510 × Bench mark (see explanation in Notes to Users section of this FIRM panel)

• M1.5 River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
June 16, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0909E

FIRM

FLOOD INSURANCE RATE MAP

TULARE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 909 OF 2550
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY	NUMBER	PANEL	SUFFIX
TULARE COUNTY	065066	0909	E
VISALIA, CITY OF	060100	0908	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06107C0909E

EFFECTIVE DATE
JUNE 16, 2009

Federal Emergency Management Agency
~~~

NOTES TO USERS

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To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 11. The horizontal datum was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1987 or later.

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If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- (A)———(A) Cross section line
- (23)- - - - - -(22) Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 7000 FT — 1000-meter Universal Transverse Mercator grid values, zone 11
- 600000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone IV (FIPSZONE 0404), Lambert Conformal Conic projection
- DX5510 X — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- ● M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
June 16, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For communities map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0928E

FIRM

FLOOD INSURANCE RATE MAP

TULARE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 928 OF 2550

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY	NUMBER	PANEL	SUFFIX
TULARE COUNTY	065066	0928	E
VISALIA, CITY OF	060409	0928	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06107C0928E

EFFECTIVE DATE
JUNE 16, 2009

Federal Emergency Management Agency

NOTES TO USERS

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Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 11. **The horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

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National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are generally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)———(A)	Cross section line
(23)- - - - -(23)	Transect line
87°07'45", 32°22'30"	Geographic coordinates, referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
7278000 FT	1000-meter Universal Transverse Mercator grid values, zone 11
600000 FT	1000-foot grid ticks, California State Plane coordinate system, zone IV (FIPSZONE 0405), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
June 16, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0929E

FIRM

FLOOD INSURANCE RATE MAP

TULARE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 929 OF 2550
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY	NUMBER	PANEL	SUFFIX
TULARE COUNTY	065066	0929	E
VISALIA, CITY OF	060409	0929	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06107C0929E

EFFECTIVE DATE
JUNE 16, 2009

Federal Emergency Management Agency

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NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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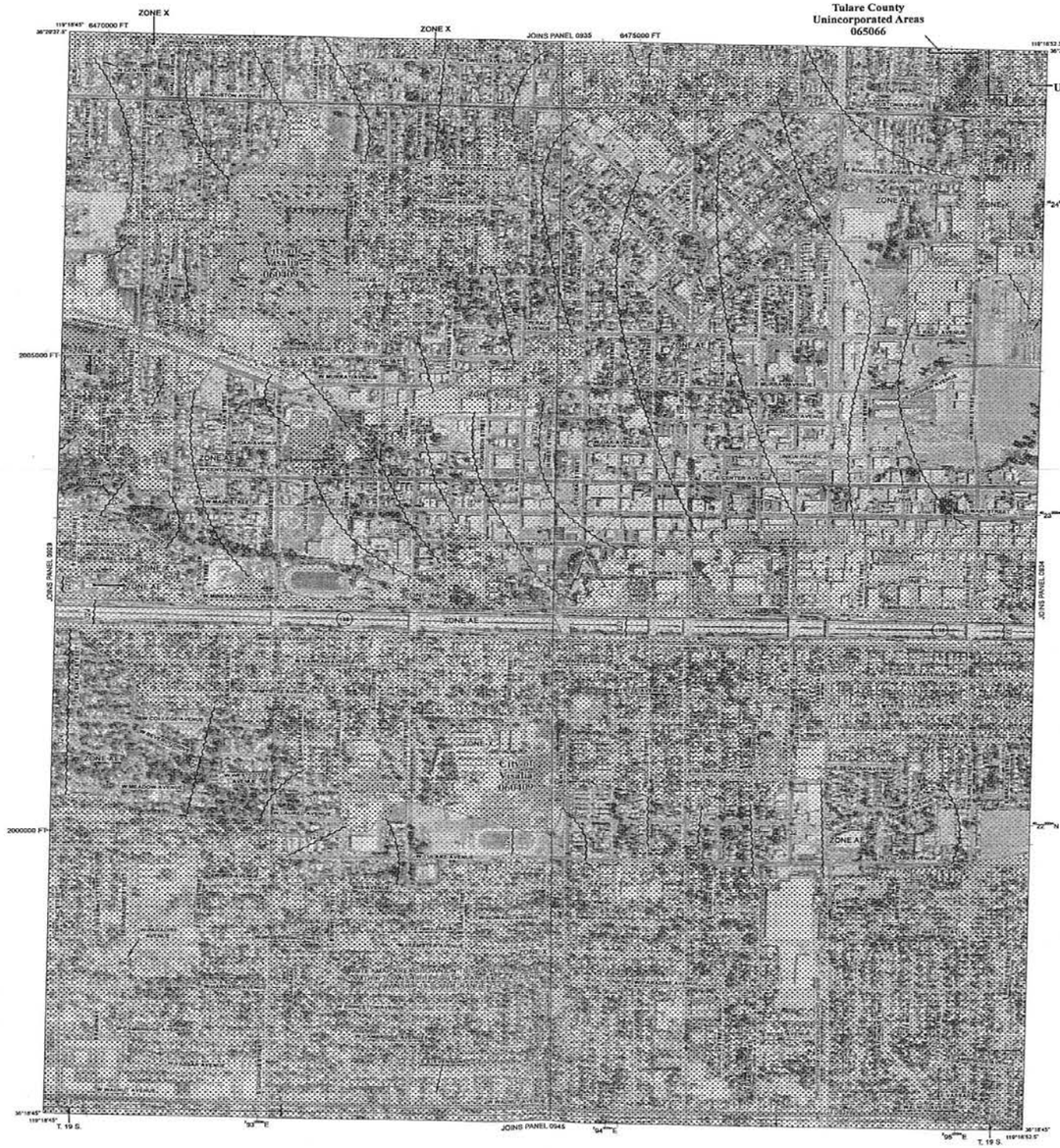

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

~~~ 513 ~~~ Base Flood Elevation line and value; elevation in feet*

(EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A) Cross section line

(B) Transect line

87°07'45", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

7°28'00"N 1000-meter Universal Transverse Mercator grid values, zone 11

600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone IV (FIPSZONE 0404), Lambert Conformal Conic projection

DX5510 x Bench mark (see explanation in Notes to Users section of this FIRM panel)

• M1.5 River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
June 16, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0933E

FIRM

FLOOD INSURANCE RATE MAP

TULARE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 933 OF 2550

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
TULARE COUNTY	065066	0933	E
VISALIA, CITY OF	060319	0933	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06107C0933E

EFFECTIVE DATE
JUNE 16, 2009

Federal Emergency Management Agency
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NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1987 or later.

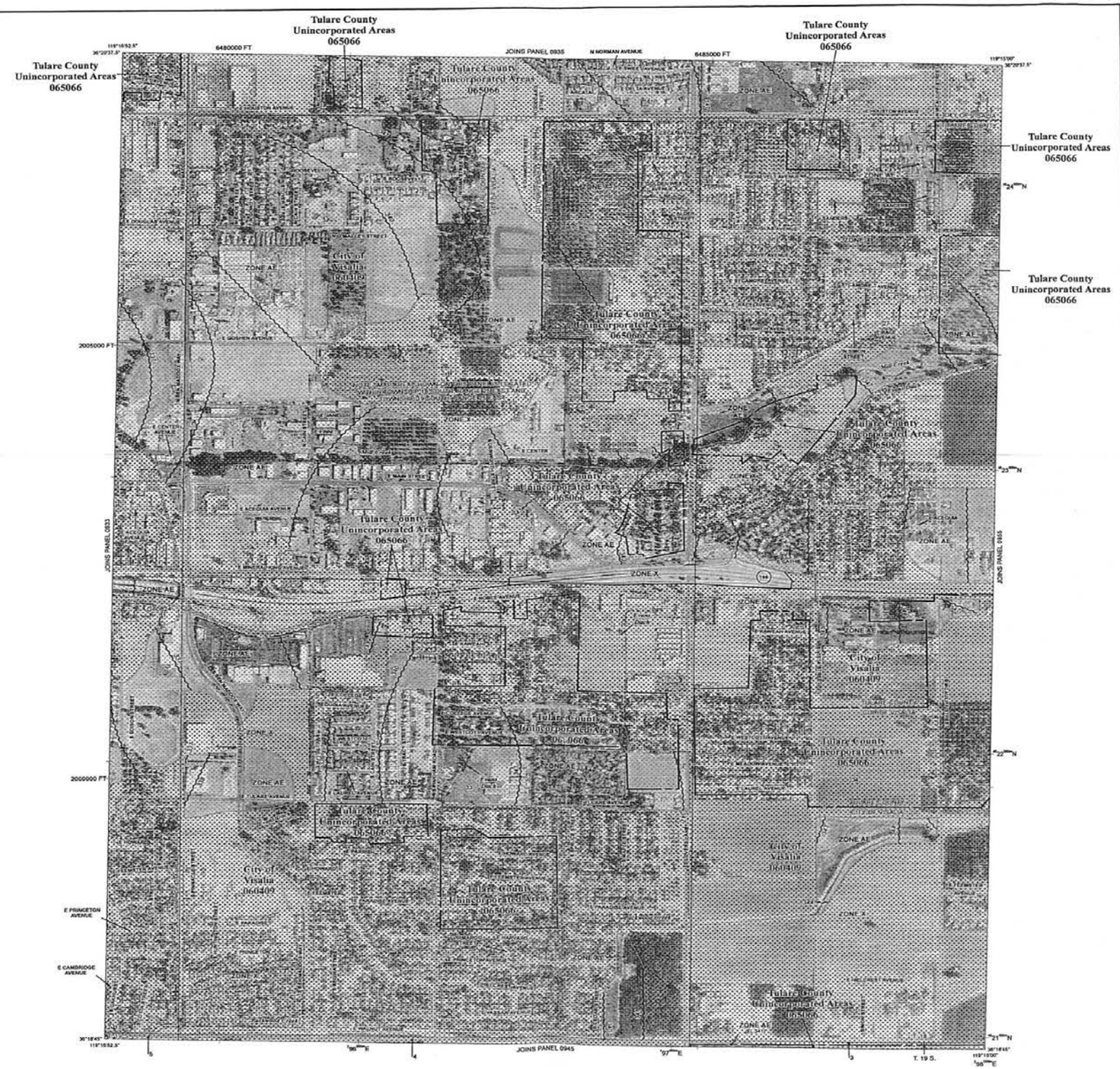
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at **1-800-358-9616** for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

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1% annual chance floodplain boundary

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Floodway boundary

Zone D boundary

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Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

(A)———(A)	Cross section line
(B)- - - - - -(B)	Transect line
87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
4275000 FT	1000-meter Universal Transverse Mercator grid values, zone 11
600000 FT	5000-foot grid ticks: California State Plane coordinate system, zone IV (FIPSZONE 0404), Lambert Conformal Conic projection
DX5510 ⊠	Bench mark (see explanation in Notes to Users section of this FIRM panel)
● M1.5	River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
June 16, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0934E

FIRM

FLOOD INSURANCE RATE MAP

TULARE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 934 OF 2550

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
TULARE COUNTY	065066	0934	E
VISALIA, CITY OF	060409	0934	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06107C0934E

EFFECTIVE DATE
JUNE 16, 2009

List of Technical Studies that are Bound Separately

Visual Impact Assessment

Natural Environment Study (Minimal Impacts)

Location Hydraulic Study