

Big Tree Creek Stormwater Compliance Project

Near the entrance to Calaveras Big Trees State Park
on State Route 4 in Calaveras County

10-CAL-4-43.8/44.3

10-0000-0033

Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment



Prepared by the
State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

August 2014



General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Initial Study/Environmental Assessment, which examines the potential environmental impacts of alternatives being considered for the proposed project in Calaveras County in California. Caltrans is the lead agency under the National Environmental Policy Act and the lead agency under the California Environmental Quality Act. The document tells you why the project is being proposed, what alternatives are being considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document.
- Additional copies of this document and the related technical studies are available for review at the Caltrans District 10 office at 1976 E. Dr. Martin Luther King Boulevard, Stockton, CA 95201 and at the Arnold Branch Library at 1065 Blagen Road, Arnold, CA 95223. The document can also be accessed electronically at the following website: <http://www.dot.ca.gov/dist10/>.
- We'd like to hear what you think. If you have any comments about the proposed project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to:

Scott Smith, Senior Environmental Planner
Central Sierra Environmental Analysis Branch
California Department of Transportation
855 M Street, Suite 200
Fresno, CA 93721

Submit comments via email to: scott.smith@dot.ca.gov.

- Be sure to submit comments by the deadline: September 15, 2014.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans, as assigned by the Federal Highway Administration (FHWA), 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 construct 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 the California Department of Transportation, Attn: Scott Smith, Central Sierra Analysis Branch, 855 M Street, Suite 200, Fresno, CA 93721. Voice: 559-445-6172. Or use the California Relay Service TTY number: 800-735-2929 or 711.

The proposed project would correct a stormwater violation on State Route 4 at Big Tree Creek

**INITIAL STUDY
with Proposed Mitigated Negative Declaration/
ENVIRONMENTAL ASSESSMENT**

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C) and 49 USC 303

THE STATE OF CALIFORNIA
Department of Transportation

Participating Agencies
Calaveras County Board of Supervisors
California Environmental Protection Agency
Regional Water Quality Control Board
California Department of Fish and Wildlife
U.S. Army Corps of Engineers
Calaveras Big Trees State Park
U.S. Environmental Protection Agency

8/8/2014
Date of Approval

Margaret P. Lawrence
Margaret L. Lawrence
Office Chief, Central Region
Environmental North
California Department of Transportation
NEPA Lead Agency
CEQA Lead Agency

The following person may be contacted for additional information concerning this document:

Scott Smith
855 M Street, Suite 200
Fresno, CA 93721
(559) 445-6172

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to widen shoulders and add gutters to help comply with the state's Stormwater Management Program and National Pollutant Discharge Elimination System permit for a location on State Route 4 two miles east of Arnold in Calaveras County within Calaveras Big Trees State Park. Caltrans has developed two build alternatives to address a stormwater violation at the site. Both alternatives would widen State Route 4 to include an 8-foot shoulder and 10-foot paved gutters on the eastbound side and 3-foot paved gutters on the westbound side.

Determination

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 from 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 project would not have a significant effect on the environment for the following reasons:

- The project would have no effect on: existing and future land use, growth, environmental justice, noise, wild and scenic rivers, farmland and timberland, plant species, residences or businesses, community character or cohesion, floodplains, hazardous wastes, paleontological resources or geological sites of record.
- The project would have no significant effect on: existing and future land use, local or regional air quality, water quality and stormwater runoff, greenhouse gases, animal species, utility/emergency services and pedestrian/bicycle facilities, traffic or transportation.
- With the following mitigation measures incorporated, the proposed project would have no significantly adverse effect on animal species, wetlands and other waters of the U.S., riparian, cultural resources (archaeology), visual resources, or parks and recreation:
 - Wetlands and Other Waters: by following the avoidance, mitigation and minimization measures within the U.S. Army Corps of Engineers and Regional Water Quality Control Board permits.
 - Riparian: The project would affect approximately 3 acres of riparian habitat. Those would be mitigated by a replacement at a 3 to 1 ratio (9 acres).
 - Archaeology: The project would adversely affect a National Register-eligible archaeology resource. Caltrans would enter into a Memorandum of Agreement with the Office of Historic Preservation to address impacts to the site. This could include data recovery and monitoring. Caltrans would also include environmentally sensitive area fencing to avoid unnecessary impacts.
 - Visual resources: by incorporating such design and maintenance activities as contour grading; minimal modification of topographic features; minimal destruction of rock outcroppings; stockpiling and randomly replacing boulders displaced by construction; staining newly exposed outcroppings for an aged look; and revegetating all disturbed soil.
 - Parks and Recreation: Transfer \$1.75 million to California State Parks for indirect impacts to campsites in the North Grove campground

Margaret L. Lawrence
Office Chief, Central Region
Environmental North
California Department of Transportation

Date

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Chapter 1 **Proposed Project**

1.1 Introduction

The California Department of Transportation (Caltrans) is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is also the lead agency under the California Environmental Quality Act (CEQA). The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

State Route 4 is a state highway that goes from Interstate 80 in the San Francisco Bay Area to State Route 89 in the Sierra Nevada. It passes through Ebbetts Pass, which contains the Ebbetts Pass Scenic Byway, a National Scenic Byway. It also passes through the cities of Stockton and Arnold, and the Calaveras Big Trees State Park.

Caltrans proposes to prevent non-stormwater pollution from State Route 4 from going into Big Tree Creek within the Calaveras Big Trees State Park. See Figure 1-1 for the Project Vicinity Map and Figure 1-2 for the Project Location Map.

Caltrans would widen State Route 4 to provide a storage area for plowed snow, so the snow would not accumulate on the slope of the creek. Snow on the road accumulates sands from de-icing work done by maintenance crews. Snow-clearing work blows the snow and sand onto the slope of the creek; when the snow melts, that debris enters Big Tree Creek.

The project is programmed in the 2012 State Highway Operations and Protection Program under the 20.10.201.335 Stormwater Mitigation Program with programming in the 2015/2016 fiscal year.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is to bring Caltrans into compliance with the National Pollutant Discharge Elimination System and Caltrans Stormwater Management Plan.

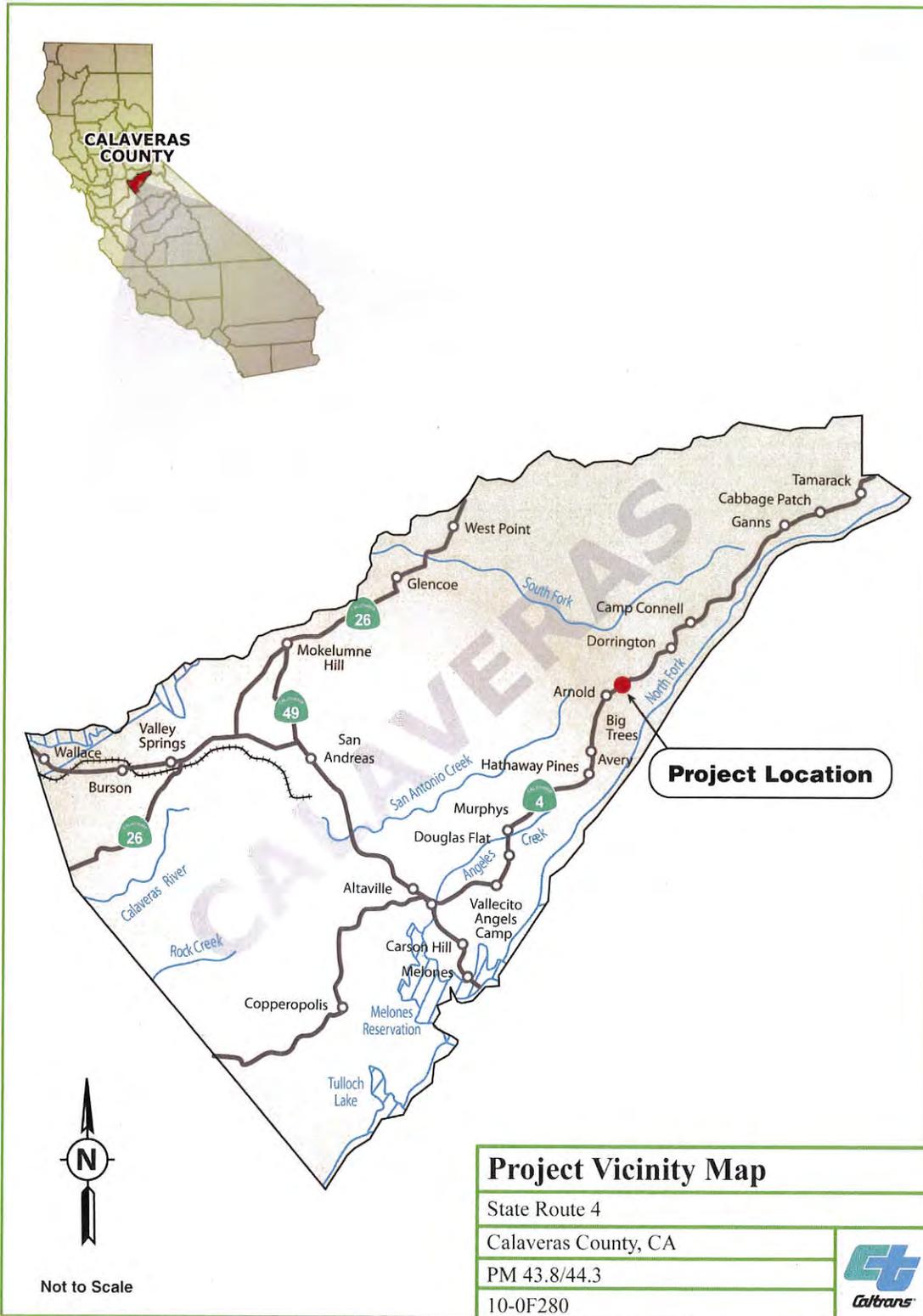


Figure 1-1 Project Vicinity Map

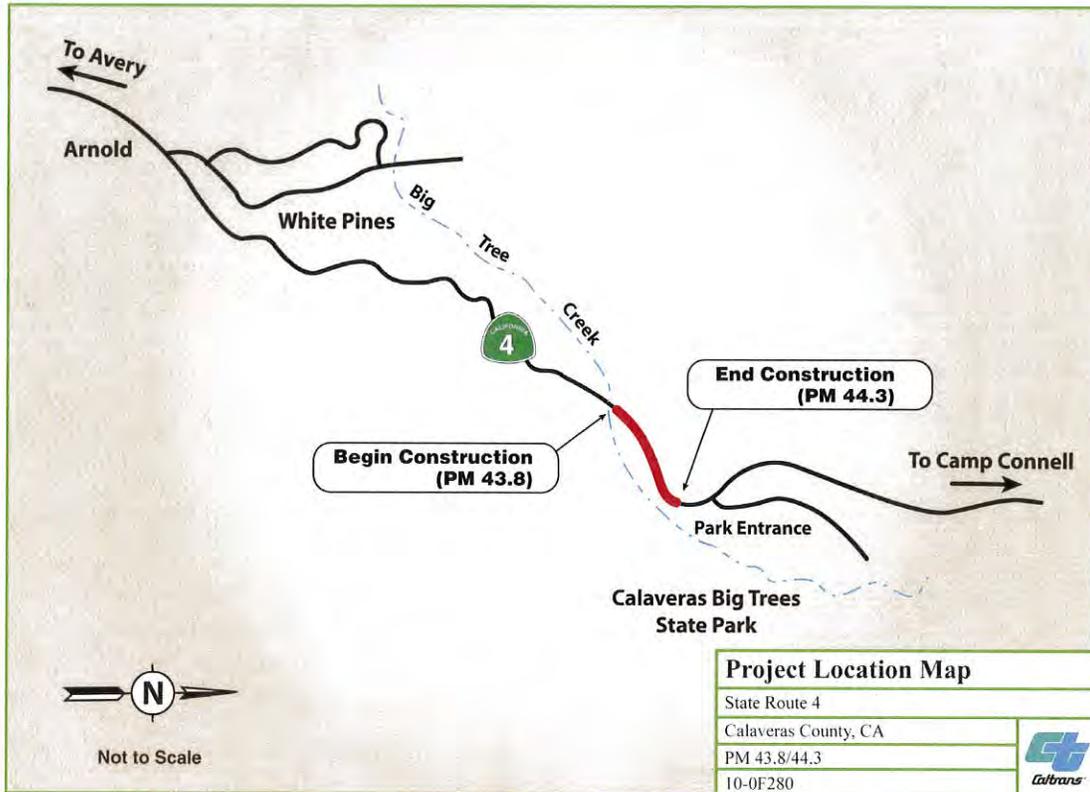


Figure 1-2 Project Location Map

1.2.2 Need

This narrow two-lane highway with minimal shoulders goes through a densely wooded area where little sunlight reaches the roadway. Because of the shady conditions, great effort is required to control icy pavement and for snow removal crews to keep the highway clear for the traveling public. Caltrans' current ice control method used during winter months is to spread sand on the icy roadway surface to improve vehicle traction. Because there isn't enough room to plow and store the snow just off the pavement, snow removal crews—using either a snow blower or plow, depending on depth of the snow—blow the snow-mixed-with-traction-sand from the pavement surface. The blown debris falls onto the slope banks along the creek. When rain falls or when the snow melts, the sand drops into Big Tree Creek. This results in a violation of the current National Pollutant Discharge Elimination System permit, which requires Caltrans to prevent non-stormwater discharges from going into the creek.

Tree removal alone, to allow sunlight to hit the roadway, would not be sufficient to eliminate the need for de-icing. Due to the angle of the sun, removal of the trees to

allow sunlight to reach the pavement is not practical; many trees would have to be removed, and that would still not effectively solve the icy pavement conditions during the night or early morning. Even after cutting away trees, traction sand would be needed.

1.3 Project Description

This project would bring Caltrans into compliance with the state's Stormwater Management Plan and the National Pollutant Discharge Elimination System permit. The permit requires Caltrans to make best efforts to address and prevent non-stormwater discharges into Big Tree Creek. Caltrans has developed two build alternatives to address this violation.

There are two build alternatives and a No-Build Alternative under consideration.

1.3.1 Build Alternatives

Common Design Features of the Build Alternatives

Both build alternatives would do the following:

- Create storage capacity for snowfall and prevent sand and other debris from getting into Big Tree Creek by constructing gutters along the shoulders on both sides of State Route 4.
- Widen shoulders on the highway to 8 feet (shoulder widths currently range from 0 to 1 foot).
- Construct a 10-foot-wide paved gutter on the westbound side and a 3-foot-wide paved gutter on the eastbound side.
- Cut back the embankment to expose up to 10 feet of hillside.
- Overlay existing pavement with asphalt concrete.
- Modify five existing drainage facilities, and construct new drainage, which would be built as traction sand traps. Traction sand traps are permanent treatment devices that temporarily detain sediment-laden runoff.

Unique Features of the Build Alternatives

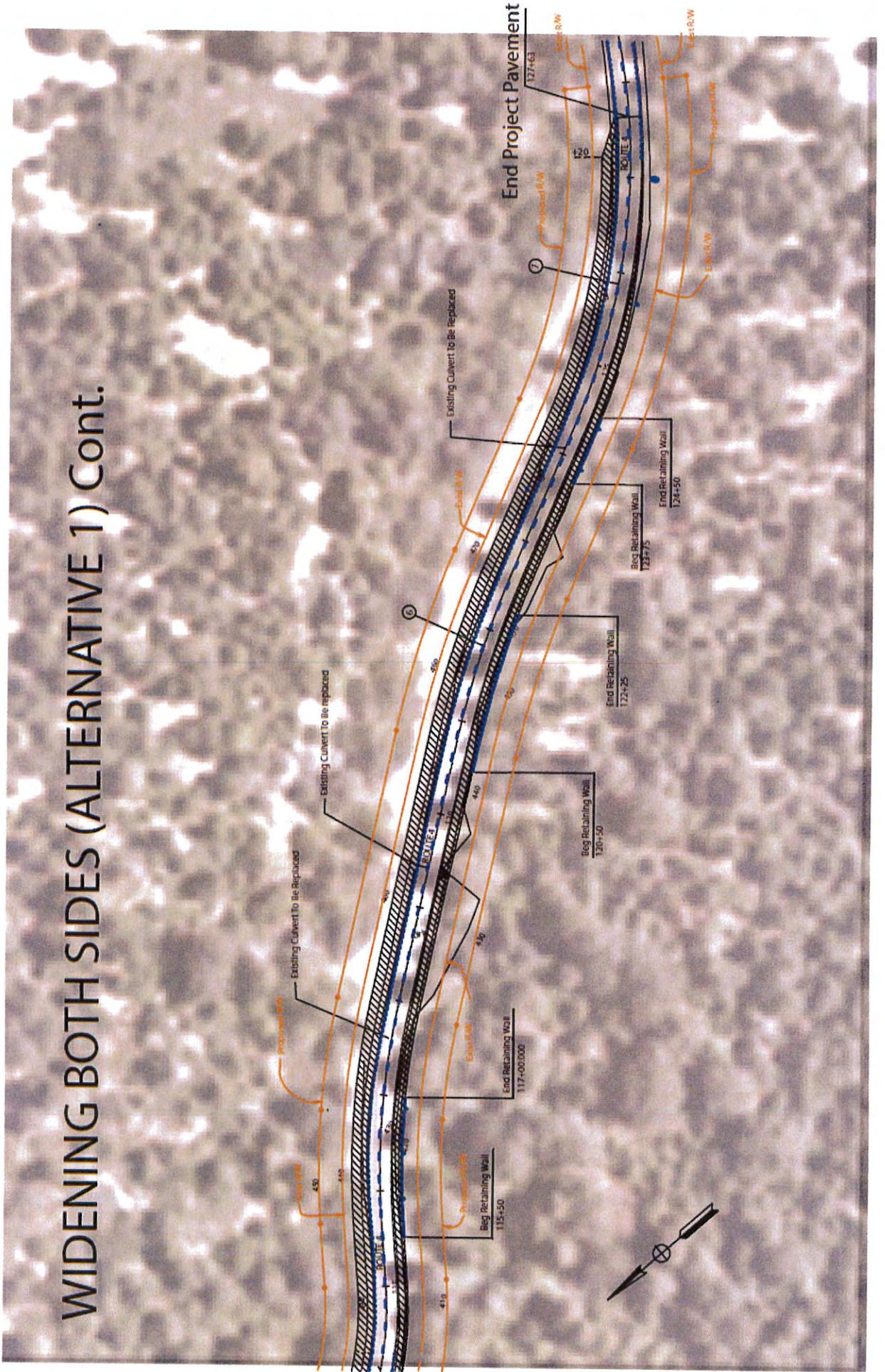
Alternative 1

Alternative 1 would do the following:

- Widen State Route 4 approximately 18 feet along the eastbound side and 11 feet along the westbound side of the existing highway.
- Construct approximately 800 linear feet of retaining walls in five locations on the eastbound side of State Route 4 along Big Tree Creek. The walls would be 3 to 4 feet high and would not be visible from the highway.
- Construct a concrete barrier along all but 240 feet of the eastbound side of the highway.
- Relocate overhead power lines and underground telephone lines.
- Extend the Caltrans right-of-way into Calaveras Big Trees State Park.

The cost of Alternative 1 is estimated to be \$4,790,000 for construction and \$984,100 for right-of-way, including mitigation, environmental permits and utility relocations.

WIDENING BOTH SIDES (ALTERNATIVE 1) Cont.



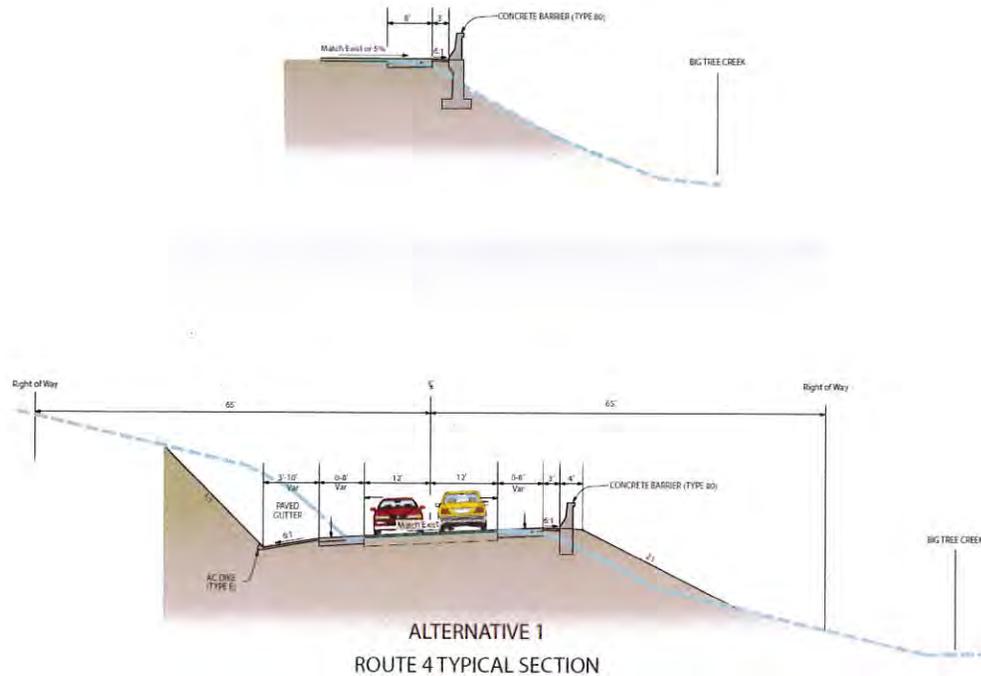


Figure 1-5 Alternative 1 Typical Cross Section

Alternative 2

Alternative 2 would do the following:

- Widen State Route 4 within the state right-of-way.
- Construct 1,665 linear feet of retaining wall on the eastbound side, 2 to 4 feet high, below the highway and a 2,060-foot-long retaining wall on the west side of the highway. The westbound wall would be 6 to 16 feet high and visible from the roadway, as it holds back the hillside above.
- Construct a concrete barrier along all but 240 feet of the eastbound side of the highway.

The cost of Alternative 2 is estimated to be \$9,731,000 for construction and \$539,663 for right-of-way, including mitigation, environmental permits and utility relocations.



Figure 1-6 Alternative 2 Map – West Side

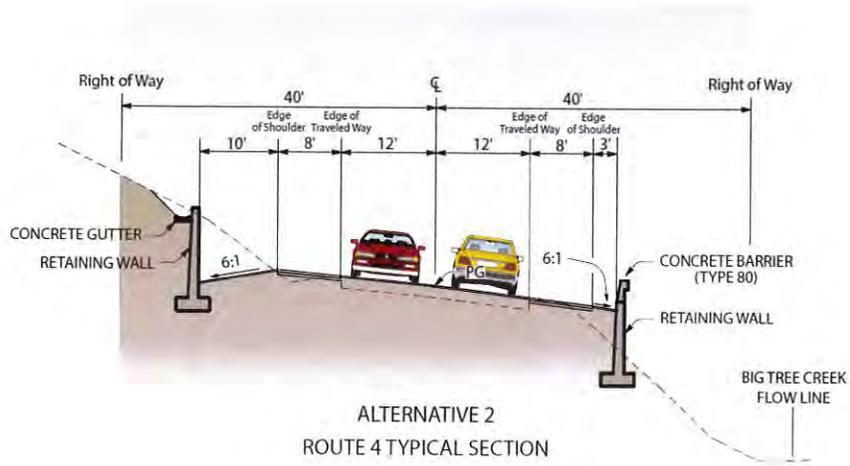


Figure 1-8 Alternative 2 Typical Cross Section

1.3.2 No-Build (No-Action) Alternative

Under the No-Build Alternative, State Route 4 would remain as it is, and Caltrans would continue to be in violation of the National Pollutant Discharge Elimination System permit.

1.4 Comparison of Alternatives

Criteria considered by the Project Development Team to evaluate the project alternatives included the project purpose and need objectives, project costs, and potential environmental effects. Table 1.1 compares the alternatives. Either of the build alternatives would address the violations of the National Pollutant Discharge Elimination System permit on State Route 4. Alternative 1 is less expensive to construct, but would involve higher right-of-way costs. It would also remove 126 montane hardwood/conifer trees and 3 acres of riparian vegetation. Alternative 2,

developed as an avoidance alternative to avoid State Park property, would be twice as expensive to construct and would require a large retaining wall to hold back the cut embankment. The concrete wall would be visible from the roadway.

The No-Build Alternative would not meet the project’s purpose and need.

Table 1.1 Comparison of Alternatives

Criteria	Alternative 1	Alternative 2	No-Build Alternative
Meets Purpose and Need	Yes	Yes	No—Caltrans would still be in violation of current stormwater permits.
Costs	\$5.7 million—estimated current total cost includes roadway, structures, and right-of-way acquisition and utility relocation.	\$10.3 million—estimated current total cost includes roadway, structures, and right-of-way utility relocation.	\$0 construction costs—Fees for NPDES permit violations are per occurrence and could be around \$2.1 million a year.
Acquisition of land from Calaveras Big Trees State Park/Parks and Recreation	Approximately 2.9 acres of park property would be acquired by Caltrans and incorporated into the state highway system;	None	None
Section 4(f)	Would affect a Section 4(f) properly	Would avoid a Section 4(F) property, but would have substantial visual impacts to the park.	None
Visual Impacts	Would remove trees and vegetation and add additional highway to view.	Would remove trees and vegetation and add additional highway to view. Would include a 12-foot-high by 2,060-foot-long wall that would be visible from the highway.	None
Impacts to Cultural Resources	Would affect two portions of CA-CAL-227/H. Caltrans proposes to resolve adverse effects under the terms of a Memorandum of Agreement, prepared pursuant to Stipulation XI of the Programmatic Agreement, which would be implemented with an archaeological data recovery plan.	Would affect two portions of CA-CAL-227/H. Caltrans proposes to resolve adverse effects under the terms of a Memorandum of Agreement, prepared pursuant to Stipulation XI of the Programmatic Agreement, which would be implemented with an archaeological data recovery plan.	None
Water Quality	Would have no adverse impacts to water quality.	Would have no adverse impacts to water quality.	Would have no impact to water quality.
Stormwater Runoff	Would remove a non-stormwater discharge.	Would remove a non-stormwater discharge.	Would leave a non-stormwater discharge source.
Riparian Vegetation	3 acres Caltrans proposes to replace at a 3 to 1 ratio	None	None

1.5 Alternatives Considered but Eliminated from Further Discussion

Widen to the North (formerly Alternative 3)

This alternative would have widened and moved the alignment of State Route 4 to eliminate the retaining wall on the north bank of Big Tree Creek and the concrete barrier on the eastbound side of State Route 4. This alternative was rejected because:

- The design exceptions required for this alternative could not be justified for a major reconstruction of State Route 4.
- It would require removal of a greater amount of the vegetation, including giant Sequoia and oak trees.
- It would have a greater impact on known cultural resources.

Realignment of State Route 4 Away from Big Tree Creek (formerly Alternative 4)

This alternative would have realigned and bypassed the existing highway.

Constructed to current design standards, this alternative would have eliminated all retaining walls and impacts to Big Tree Creek. This alternative is not viable and was rejected because:

- It would greatly increase the impacts to vegetation, including giant Sequoia redwood and oak trees.
- It would require the acquisition of 8.4 acres from state parklands for right-of-way, increasing Section 4(f) impacts, because it would require constructing new highway instead of just widening existing roadway.
- It would increase the impact to known cultural resources.

1.6 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for construction:

Agency	Permit/Approval	Status
U.S. Army Corps of Engineers	404 Nationwide Permit	Would be obtained before construction.
Regional Water Quality Control Board	401 Permit	Would be obtained before construction.
California Department of Fish and Wildlife	1600 Streambed Alteration Agreement	Would be obtained before construction.
Office of Historic Preservation	The State Historic Preservation Officer concurrence with the Area of Potential Effect (APE); identification of historic properties, evaluation efforts, and determinations of eligibility to the National Register of Historic Places	Received on January 23, 2014.
Office of Historic Preservation	Memorandum of Agreement	Would be completed before final environmental document.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

As part of the scoping and environmental analysis done for the project, the following environmental issues were considered, but no adverse impacts were identified. Consequently, there is no further discussion of these issues in this document.

- Wild and Scenic Rivers—There are no wild and scenic rivers within the project area. (National Wild and Scenic Rivers System website, <http://www.rivers.gov/california.php>)
- Growth—The project would not cause or remove barriers to growth.
- Farmlands/Timberlands—There is no farmland within the project area. While there are numerous trees in the project area, they are all within the state park boundaries and therefore not available for harvest. As such, no timberland would be affected.
- Community Impacts—The project would not affect an existing community because it lies within a state park.
- Relocations—The project would not require the relocation of businesses or residences.
- Environmental Justice—The project would not have a disproportionate and adverse impact on a low-income or minority community.
- Hydrology/Floodplain—The project lies outside the 500-year floodplain. There would be no longitudinal encroachments within Big Tree Creek.
- Geology/Soil/Seismic/Topography—No major geological features are in the project area. No geologic or seismic features would alter the project design or affect public health. (Draft Geotechnical Report, 2009)
- Paleontology—The project is not expected to affect paleontological resources. (Paleontology Identification Report, revised March 2014)
- Hazardous Waste or Materials—The project is not expected to encounter hazardous waste or materials. (Initial Site Assessment, December 2009)

- Air Quality—The project is exempt from air quality determination and is not expected to cause further violations of air quality standards. (Air, Noise, Water Report, July 2013)
- Noise—Projects subject to Caltrans’ Traffic Noise Analysis Protocol are projects defined as Type I projects in Section 23 Code of Federal Regulations. A Type I project is defined as: “A proposed federal or federal-aid highway project of the construction of a highway on a new location, or the physical alteration of an existing which significantly changes either the horizontal or vertical alignment or increase the number of through-traffic lanes.” This project will neither increase the existing traffic capacity nor alter the location of traffic lanes. (Air, Noise, Water Report, July 2013)
- Plant Species—The project is not expected to have an effect on plant species. (Natural Environment Study, December 2013/Natural Environment Study Addendum March 2014)
- Threatened and Endangered Species—The project is not expected to have an effect on threatened and endangered animal or plant species. (Natural Environment Study, December 2013/Natural Environment Study Addendum March 2014)

2.1 Human Environment

2.1.1 Land Use

2.1.2 Parks and Recreational Facilities

Regulatory Environment

The project would affect facilities that are protected by the California Public Park Preservation Act (California Public Resources Code Sections 5400-5409). The act prohibits local and state agencies from acquiring any property that is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation or land, or both, to enable the operator to replace the parkland and any park facilities on that land.

Affected Environment

Calaveras Big Trees State Park, established in 1931, is a California state park administered by the California Department of Parks and Recreation in Calaveras County (see Figure 2-1).

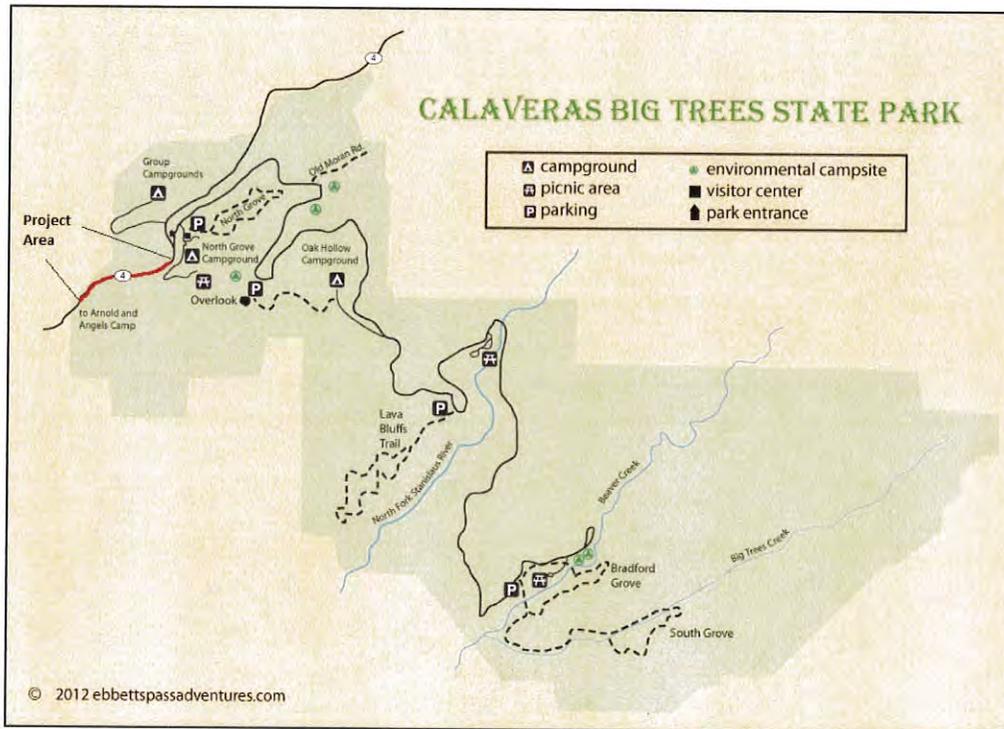


Figure 2-1 Calaveras Big Trees State Park Map

The park, known for its groves of giant Sequoia, consists of 6,500 acres of mixed conifer forest. This parkland is protected under the California Public Park Preservation Act.

Day use of the park is allowed from sunrise to sunset. Camping at the North Grove campground is allowed from March to November. Oak Hollow campground is the only other campground in the park.

The project is about 0.2 mile west of the main entrance of the park, near North Grove campground. North Grove campground has 74 campsites and a visitor center (see Figure 2-2). It is the trailhead for North Grove Trail. The trail is 1.5 miles long and well marked; some of its key features are the Big Stump and several large Sequoia.

Section 4(f)

Calaveras Big Trees State Park, established in 1931, is a California State Park administered by the California Department of Parks and Recreation in Calaveras County. The park consists of 6,500 acres of mixed conifer forest and is known for its groves of giant Sequoia. The park is accessed via State Route 4, by car and sometimes bicycle. (See Figure B-3)

The project is about 0.2 mile west of the main entrance of the park, near North Grove campground. The North Grove campground has 74 campsites and a visitor center, and is the trailhead for the North Grove Trail. The trail is 1.5 miles long and well marked; some of its key features are the Big Stump and several large Sequoia.

Because this project would affect a public-owned park, it is subject to Section 4(f). Section 4(f) impacts are addressed in Appendix B.

Section 6(f)

On August 1st, 2014, the Office of Grants and Local Services with the California Department of Parks and Recreation sent a letter (see Appendix F) indicating that while the project is within land protected under the Land and Water Conservation Fund (Section 6(f)), the use of the specified park property for this project was not incompatible with recreation uses nor change or restrict access to the park the project would not constitute a conversion of Section 6(f) property.

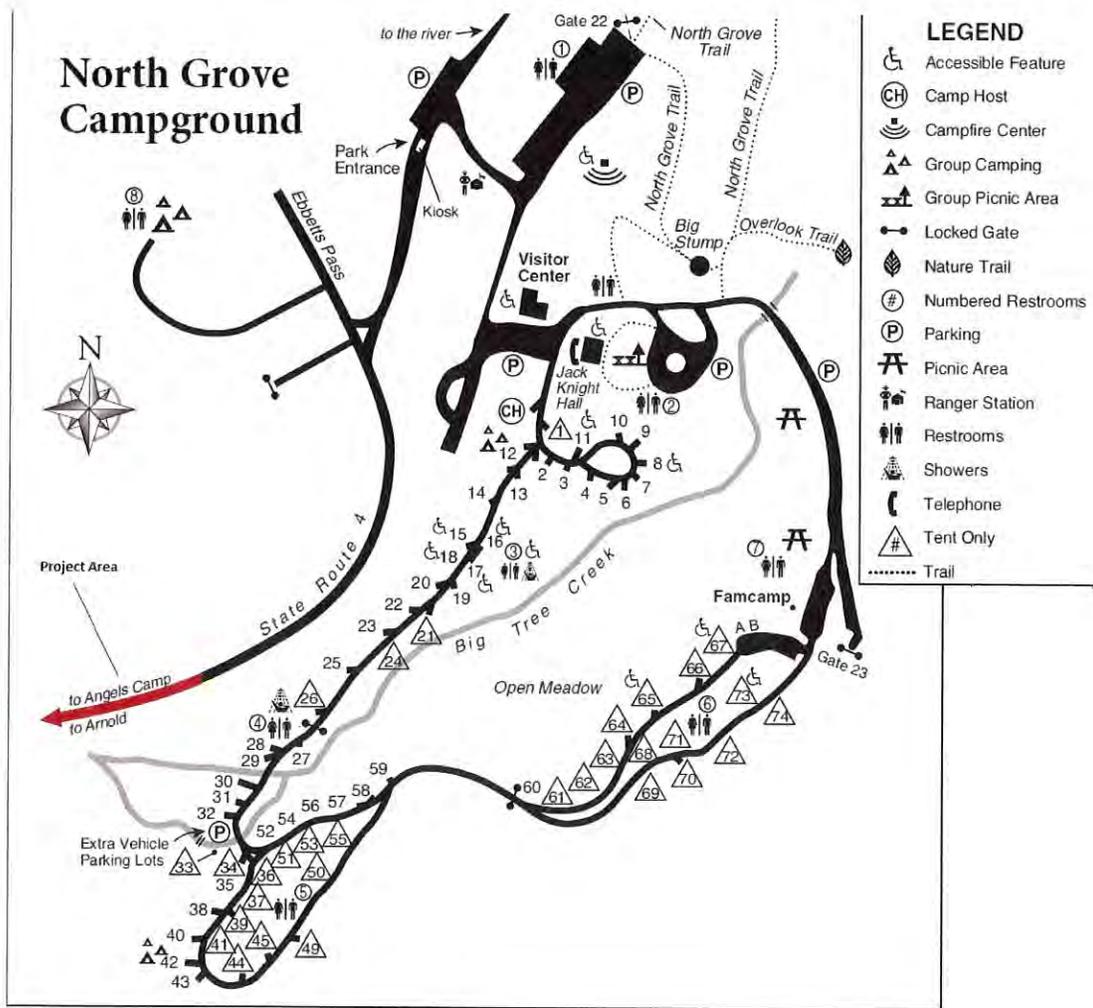


Figure 2-2 North Grove Campground

Environmental Consequences

Direct Impacts to Calaveras Big Trees State Park

Alternative 1 would acquire 2.9 acres of parkland for conversion to state highway; Alternative 2 would not acquire any park right-of-way.

If Alternative 1 were selected as the preferred alternative, a very small percentage (approximately 0.04%) of the parkland within Calaveras Big Trees State Park would be converted from park use to transportation use. No recreational facilities would be directly affected with this conversion. (See Appendix B for Section 4(f) evaluation).

Caltran’s Division of Right of Way and Land Surveys would coordinate with the Calaveras Big Trees State park to provide compensation under the Park Preservation Act.

Visual

Visual impacts are addressed in the Visual section. See Section 2.1.4.

Construction Noise

There would be some construction noise but, to avoid affecting overnight camping, construction would occur during the daytime.

Avoidance, Minimization, and/or Mitigation Measures

Alternative 1 would convert 2.9 acres of park property. The acquired property would become part of the highway right-of-way.

Caltrans would address the direct impacts to park property by transferring \$1.75 million to Calaveras Big Trees State Park to fund the relocation of five campsites in North Grove Campground. The newly created campsites will be away from State Route 4, and include expanded utilities, new trails and upgrades to meet current Americans with Disabilities Act standards.

2.1.3 Utilities/Emergency Services

Affected Environment

There are underground and telephone within the project area, as well as an overhead power line.

First responders to emergencies within the project area may include the California Highway Patrol, California State Park Rangers, California Department of Forestry and Fire Protection, and private emergency medical transportation.

The closest California Highway Patrol office is at 749 Mountain Ranch Road in San Andreas (zip code 95249-9801), about 18 miles from the project area.

Environmental Consequences

Construction would require relocation of the underground telephone fiber optic line and overhead power line. This would include moving two power poles.

Emergency services could be affected during construction due to temporarily increased response times for emergency medical and fire services. Emergency vehicles would receive preference for passage through any lane closures.

Avoidance, Minimization, and/or Mitigation Measures

The telephone and power lines would be moved before construction, and there would be no disruption to service.

The project would always leave one lane open, providing access for emergency responders.

2.1.4 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

Caltrans, as assigned by the Federal Highway Administration, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by U.S. Department of Transportation regulations (49 Code of Federal Regulations Part 27) implementing Section 504 of the Rehabilitation Act (29 U.S. Code 794). The Federal Highway Administration has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the 1990 Americans with Disabilities Act requirements to federal-aid projects, including Transportation Enhancement Activities.

Affected Environment

State Route 4 is a two-lane highway within the project area. The Calaveras County Bike Master Plan (2007) shows State Route 4 from Arnold to Dorrington, which includes the project area, with a proposed Class III bike lane. A Class III bike lane is defined only by signs. The long-term goal of all Class III routes is to have at least 4 feet of pavement outside the travel way. This is typically provided by the shoulders.

Currently, because the highway shoulders range in width from 0 to 1 foot, both bicyclists and pedestrians use the existing highway to travel through the project area.

There are no signs warning motorists to watch for pedestrians or bicyclists.

Environmental Consequences

The project would be compatible with current bicyclist and pedestrian uses. The project would provide 8-foot-wide shoulders within the project area. This would meet the structure requirements for the ultimate goal of a Class III bike lane. The widened shoulders would improve non-motorized vehicle travel but, because this segment of State Route 4 is limited in length, the benefit would be minimal.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is proposed. No signs would be added within this short distance because the project covers only 0.5 mile within the 6-mile distance of State Route 4 between Arnold and Dorrington.

2.1.5 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969 as amended establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 U.S. Code 4331[b][2]). To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act (23 U.S. Code 109[h]) directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act establishes that it is the policy of the State to take all action necessary to provide the people of the State “with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities” (California Public Resources Code Section 21001[b]).

Affected Environment

A Visual Impact Assessment was completed in August 2013.

The existing roadway is a two-lane highway that winds through the densely wooded forest of the Sierra Nevada Mountains. The project is on a State Scenic Highway and a National Scenic Byway. A State Scenic Highway is a highway for which a local agency has developed a corridor protection program. Caltrans attempts to protect these corridors as much as possible.

Regional Landscape

Defining the regional landscape establishes a frame of reference for comparing the visual effects of the project and determining the significance of these effects. A regional landscape is made up of various landscape components that distinguish it from the next. Components of the regional landscape are landforms and land cover, including such features as water, vegetation, and human-made development. The following describes the landscape components of the project area.

Landforms

Natural landforms in the region include mountains and valleys. The project lies in a region that is part of the western face of the Sierra Nevada Mountains. State Route 4 runs on an east-west alignment, crossing a series of rolling hills and small valley meadows as it climbs in elevation eastward toward the volcanic landscape and glacier-carved canyons near the crest of Ebbetts Pass summit. Tall trees line the highway through the corridor (see Figure 2-3).

The project area has a north-slope orientation that is susceptible to snow drift accumulation during winter months. Just south along the highway is Big Tree Creek, where much of the winter snow is deposited.



Figure 2-3 Typical Project Area View

The Sierra Nevada Mountains have steep slopes and ravines that form a series of ridgelines and deep and shallow valleys. Rocky outcrops exposed by roadway excavation appear along portions of the highway. The contrast between the flat topography of the Central Valley and the progressive incline to the Sierra foothills and mountain region provides the viewer with a wide diversity of visual experiences.

Once within the project limits, the viewer has more limited views. Dense forest next to the roadway restricts what motorists can see of the mountains and ridgelines, forcing the viewer's range to the immediate foreground and reducing middle-distance views to just the roadway ahead. Long-distance views within project area are virtually nonexistent.

Land Cover

Physical material on the surface of the earth, such as rivers, rocks, human-made objects including residences and commercial buildings, and trees and other vegetation, is referred to in this document as "land cover."

Throughout the State Route 4 corridor is a variety of land cover characteristics that differ between the valley, foothill and mountain landforms. These surface features visually define a particular region or sub-region.

Water

Surface water is an important visual element throughout much of the region, though few water elements exist right next to or within the highway corridor. Big Tree Creek is within the project area, but views of it from the highway are brief for westbound travelers and only intermittent for eastbound travelers. From the eastbound lane in particular, the riparian vegetation and forest understory, as well as the meandering creek alignment, limit the motorist's ability to see the creek (see Figure 2-4).



Figure 2-4 Big Tree Creek

Vegetation

Throughout the region, vegetation is a distinguishing component of the regional landscape and visual character. Vegetation within the project area consists of a mixed forest of densely planted conifers (evergreens), including redwoods, pines, and cedar as well as some deciduous species, such as oak and dogwood trees (see Figure 2-3).

The dense forest understory consists of both annual and perennial vegetation. This diversity provides the forest floor with an array of plant forms and textures as well as seasonal color. Riparian vegetation can be found lining the banks next to the slow-moving Big Tree Creek, creating visually unique plant communities coexisting within the forest environment (see Figure 2-5).



Figure 2-5 Forest Vegetation

Human-made Elements

Human-made elements, though not many, sit within the project area. Off-road elements, such as building structures, park camping areas and overhead utility lines, are found in the densely forested area. Coupled with sensitive placement or use of natural earth-tone materials (wood, rock, etc.), the existing built environment goes almost unnoticed by viewers (see Figure 2-6).

By contrast, the most noticeable human-made element is the State Route 4 roadway surface itself and related elements (signs, guardrails, bridges, etc.). But the roadway, while highly noticeable, becomes commonplace to the viewer because views of the roadway are overshadowed by the natural surroundings (see Figures 2-3 and 2-5).



Figure 2-6 “Built Environment” Structure in Park

Landscape Unit

A visual impact assessment of the project area used landscape units to differentiate between areas being assessed. A landscape unit is a portion of the regional landscape that can be thought of as an outdoor room that exhibits a distinct visual character. A landscape unit often corresponds to a place or district that is commonly known among local viewers.

The proposed construction area runs for a distance of about 0.6 mile along this portion of the scenic corridor. The landscape unit within the corridor is visually considered as a single unit of the mountain forest landscape unit.

For this visual impact assessment, a “sub-unit” called the Big Tree Creek (Riparian) landscape unit was identified within the mountain forest landscape unit. While not unusual for a mountain forest landscape, this sub-unit became evident due to the proximity and sensitive nature of the surrounding the riparian creek habitat.

Mountain Forest

The topography and vegetation within this unit were found undisturbed and consistent with the overall regional landscape, presenting no nonconforming or atypical visual features. This unit is characterized by dense forest vegetation, including various

evergreen and deciduous tree species and understory plant material, as described in the Vegetation subsection above. The mountain forest landscape unit is visually bisected by State Route 4, the most noticeable and dominant human-made element (see Figure 2-7).



Figure 2-7 Landscape Unit – Mountain Forest

Landscape “Sub-Unit” – Big Tree Creek (Riparian)

Essential elements of this landscape unit are the water-carved banks and creek terraces, and low-growing riparian vegetation. While the sub-unit is characterized by waterside features, water is only partially visible to motorists and recreation users. Though the differences are subtle, presence of these riparian features offers some visual diversity to the otherwise dominant mountain landscape unit (see Figures 2-8 and 2-9).



Figure 2-8 Landscape Sub-unit—Big Tree Creek (West View)



Figure 2-9 Landscape Sub-unit—Big Tree Creek (East View)

Project Views

Views that represent a project area are a subset of each landscape unit and are composed of all surface areas visible from an observer's viewpoint. The limits of a specific view include locations of views from the proposed project. The view also includes the location of viewers likely to be affected by visual changes brought about by the project features. Views for this project include the landscape that is visible from State Route 4 and various vantage points outside the highway right-of-way and within the project limits.

Observer Viewpoints

Viewing locations or observer viewpoints were identified to best represent the existing visual character of the project area (see Figure 2-10). Observer viewpoints were also selected based on the susceptibility of the site to visual change and the perceived viewer response to potential changes caused by the project.



Figure 2-10 Observer Viewpoints

Viewer Sensitivity and Response

A change in visual character cannot be described as having either good or bad attributes until it is compared with the viewer response to that change. Public opinion concerning established scenic values of a regional landscape and opinion on how proposed built elements would affect these values are the basis for evaluating the contrast in visual character.

Development Guidelines

State Route 4 has long been recognized for its rich scenic resources by many viewer groups. Consequently, like-minded local groups and state and federal agencies have organized to document shared community values and opinions in an effort to preserve and maintain this natural visual heritage and resource. The following designations and planning and guidance documents indicate the degree of sensitivity concerning the aesthetic character of this highway corridor.

Guidance Documents

State Scenic Highway Designation – On November 9, 1971, State Route 4 was designated an Official State Scenic Highway for its natural beauty and to preserve its scenic assets for the region for posterity. The designation of Official State Scenic Highway requires local jurisdictions to adopt adjacent land use regulations and develop ordinances controlling the appearance of earthwork, landscaping, vegetation, structures and equipment within the scenic corridor surrounding the highway. The California Streets and Highway Code states that, concerning State Scenic Highways, Caltrans “shall give special attention both to the impact of the highway and the landscape and to the highway’s visual appearance.”

National Scenic Byway Designation – On September 22, 2005, State Route 4 was officially designated the Ebbetts Pass National Scenic Byway by the U.S. Secretary of Transportation. A mission of this national program is to enhance appreciation and public knowledge of the scenic, cultural and historic resources along the byway and throughout the nation. The National Scenic Byway program seeks to maintain these resources through the development of a corridor management plan that specifically includes scenic issues.

Corridor Management Plan for the Ebbetts Pass National Scenic Byway – In August 2004, the Corridor Management Plan for the Ebbetts Pass National Scenic Byway was completed and submitted as a prerequisite for the national designation. The Ebbetts Pass plan is designed to provide guidance to federal, state, and local

agencies, private landowners, and interested businesses to showcase the unique scenery, historical significance and extensive recreational opportunities present along this route. Some of the items addressed include existing land use, commerce, highway conditions, management strategies, signage and advertising control, and the jurisdictional boundaries of both Calaveras and Alpine counties.

The plan's stated goal is "to protect and enhance the intrinsic qualities of the corridor for the enjoyment of present and future generations." The plan defines the intrinsic qualities as "inherent, essential, unique, or irreplaceable features representative or distinctly characteristic of an area."

Guidelines specific to this project include:

- Roadway
 - Increase shoulder widths to help snow removal
- Construction Practices
 - Use context sensitive excavation to reduce scarring of the land
 - Develop on top of fill slopes to reduce cut slope excavation
 - Perform contour grading to match existing conditions
- Structures
 - Avoid modern (urban) type built elements
 - Use context sensitive building materials that match natural color, line and materials to enhance scenic values
 - Provide aging elements and/or stains to blend with surroundings

Calaveras County General Plan – The following guidelines address scenic resources:

- To preserve and protect the scenic qualities of the county:
 - Proposed new development shall consider the scenic qualities of the natural resources in the design of the project.
 - New development shall be encouraged to avoid extreme topographic modification, and may be required to restore natural contours and vegetation of the land after grading or other land disturbances.

- New development shall be encouraged to be designed in a manner that is sensitive to available natural resources.

Calaveras Big Trees State Park General Plan – In February 1989, Calaveras Big Trees State Park adopted its General Plan. Specific to this project, the plan addresses concerns related to general vegetation management and preservation as well as concerns on aesthetic resource preservation. The following are design guidelines that specifically relate to the proposed project:

- Perpetuate natural plant communities to be naturally managed toward normal plant successional trends as found in the natural environment.
- Restore vegetation where land has been modified to bring plant communities back into their natural condition or habitat.
- Devise and implement specific vegetation management programs as necessary and appropriate to achieve these goals.
- Design construction elements to preserve existing scenic qualities and not to create incongruous intrusions or unnecessary interference with scenic features.

U.S. Department of Agriculture Forest Service – Stanislaus National Forest Service manages most of the Ebbetts Pass Scenic Byway scenic resources. Service guidelines were created to maintain and enhance State Route 4 as a forested scenic corridor. The following are some of the pertinent design guidelines that specifically relate to the proposed project:

- Construction features should remain subordinate to the natural environment.
- Natural colors of brown, beige or forest green should be considered.
- Building materials such as wood and rock versus plastic or metal should be used.
- Boundary edges should be blended having a feathered or ragged edge to mimic natural boundary patterns.

Viewer Groups

Two general viewer groups were considered for the evaluation of viewer response: those with views from the road and those with views of the road (see Figures 2-11 and 2-12). Views were categorized by the following distances:

- Foreground – Up to ¼ mile
- Middle ground – ¼ mile to 3 miles
- Background – beyond 3 miles

Viewer Group—From the Road

This viewer group is composed of the highway user. For viewers traveling on State Route 4 through the project area, foreground views are dominant. Middle-ground views exist, but are limited by the dense forest vegetation and the steep side slopes next to the roadway. Background views are almost nonexistent due to the same dense vegetation and steep slopes (see Figure 2-11).



Figure 2-11 Viewer Group—From the Road

Viewers from State Route 4 are mostly motorists, including skiers, campers, hunters and sightseers, as well as the local user, including business owners, employees, and private property owners. Bicyclists also use this road.

Generally, awareness of visual resources by these highway users is expected to vary with their specific activity. Tourists, which make up many viewers on State Route 4, often have a high awareness of the visual resources around them, but are less sensitive to specific changes in that environment. This is particularly true for first-time visitors and those less familiar with a specific area.

Conversely, frequent visitors possess a higher degree of sensitivity to visual change because of their familiarity with the location. In general, however, highway users within the project location will experience the area as a cumulative sequence of views and may not focus on specific roadway features. The exception may be a bicyclist; because of proximity and the slower rate of speed moving through the area, the bicyclist may detect changes to an environment that do match the overall regional landscape that go unnoticed to vehicular traffic.

Lastly, local residents—those who live and work in the area as well as people who have vacation homes in the area—are the most sensitive to aesthetic differences because they are familiar with the environmental surroundings.

Viewer Group—Of the Road

This viewer group is made up of people who can see the road project or any of its components from offsite locations. People in this group are Calaveras Big Trees State Park users, particularly users of the park facilities near the northwest park boundary. This is a small group of viewers. But, from these vantage points, these viewers are close to the project site, between the foreground and middle-ground ranges (see Figure 2-12). These viewers include day users, campers and hikers, and park personnel. These views are limited by the surrounding forest and riparian vegetation.



Figure 2-12 Viewer Group—Of the Road (North Grove Campground)

Though few park users might be visually affected by the project, the close proximity to the project site and the viewing duration are what would increase viewer awareness here. It is not uncommon for park users to be repeat visitors, which could potentially increase their familiarity with the park and its surroundings. In this case, these viewers would possess a high degree of sensitivity to change.

Environmental Consequences

Visual Impacts

A visual quality evaluation assessed the magnitude of the potential visual changes caused by the project. This evaluation compared the visual quality of both the existing and proposed conditions. A separate evaluation was done from each of the observer viewpoints. A numerical rating between 1 and 7 was assigned for the existing quality from each viewpoint, with 1 having the lowest value and 7 the highest. Photo simulations were prepared to illustrate the likely appearance of each view after project construction. Numerical ratings were then assigned to each of these “proposed” views. The numerical difference between the existing and proposed conditions quantified the change that may occur as a result of the project. The difference was compared to the expected sensitivities of potential view groups to determine a level of visual impact.

The numerical ratings were based on three criteria: vividness, intactness, and unity, defined as follows:

- Vividness is the visual power or memorability of the landscape components as they combine in distinctive visual patterns.
- Intactness is the visual integrity of the landscape and its freedom from non-typical encroaching elements. If all of the various elements of a landscape seem to “belong” together, there will be a high level of intactness.
- Unity is the visual harmony of the landscape considered as a whole. Unity represents the degree to which the visual elements maintain a coherent visual pattern.

Visual Quality Evaluation by Observer Viewpoints

Observer Viewpoint 1 (OV-1)

Observer Viewpoint 1 shows a segment of State Route 4 that is typical within the project area. This view represents the visual character of the landscape where existing cut slopes are visible and partially vegetated next to the roadway and set against the mountain forest backdrop (see Figures 2-13, 2-14 and 2-15).

Observer Viewpoint 1 is rated moderately high for existing visual quality. This view earns its highest ratings for visual unity because of the harmonious aesthetic pattern created by the dense forest vegetation overlaying the mountain topography. The height of the existing cut slopes appears balanced with the existing mature trees, scattered understory, and rock outcroppings.

Additional visual qualities are noted in the riparian vegetation of Big Tree Creek. The intactness of this view is high, though somewhat reduced by the excavated side slopes and existing roadway surface. The vividness of the view is average to moderately high due to the presence of Big Tree Creek riparian habitat, which provides increased memorability.

With implementation of the project, the visual quality rating from this viewpoint would be reduced considerably. Both unity and intactness would be lowered due to the introduction of hardscape elements such as retaining walls, the continuous traffic barrier, and increased roadway paving and related elements.

Perhaps the biggest change to the visual character would come with the extensive slope excavation proposed on the north side of the highway for snow storage. The slope work would remove mature trees and forest understory next to the roadway, leaving a scarred road cut about 10 feet high running the entire length of the project (0.6 mile). In addition to the newly graded slope configuration (a straight 1:1 gradient) and scarring, the excavation would result in opening the forest canopy (by tree removal) to change the overall look of the landscape.

With construction of the project, the vividness rating for this location is expected to increase slightly. Due to the considerable disruption to the existing landscape, both memorability and vividness would increase.



Figure 2-13 Observer Viewpoint 1: Existing



Figure 2-14 Observer Viewpoint 1: Alternative 1



Figure 2-15 Observer Viewpoint 1: Alternative 2

Observer Viewpoint 2 (OV-2)

Observer Viewpoint 2 overlooks the project from within the state park. This view represents the typical scene from about five North Grove camping sites looking toward the Big Tree Creek riparian area and beyond to the forested mountainside across State Route 4. From this viewpoint, the highway blends well with the existing natural surroundings and is virtually unseen. Except for the sounds of passing vehicles, one would not even perceive that a highway was near (see Figures 2-16 and 2-17).

The ratings indicate that this landscape unit has a moderately high visual quality. At this location, the vividness rating is the lowest of the three rating criteria because the landscape is fairly typical and not considered memorable to the viewer. The visual continuity of the forest along the park edge and the freedom from encroaching nonconforming elements result in a high intactness and unity rating for this viewpoint.

With implementation of the project, the visual quality rating for this viewpoint would be reduced considerably. Like Observer Viewpoint 1, both unity and intactness would be lower because of the introduction of hardscape elements such as retaining walls, the continuous traffic barrier, and increased roadway paving and related elements. From this viewpoint (see note below) and because this viewer location faces the project site, it is expected that viewers would be highly sensitive to the proposed construction, with introduction of stark nonconforming project elements in the foreground and engineered side slopes in the middle-ground beyond the retaining structures. As for the structures, it is expected that only one of the five proposed retaining walls would be visible to campers. The other four walls would be visible to only the hikers on new trails on the southern side and upslope from Big Tree Creek.

Because of the campground proximity to the construction site and the extended potential viewing duration by the park users, the vividness rating is expected to rise based on the perceived visual memorability to the changes in landscape character.

Note: Currently, views of the highway from the adjacent campsites are substantially restricted by several large fallen trees.



**Figure 2-16 Observer Viewpoint 2: Existing/ Post Construction
Alternative 1 and 2**

Cumulative Effects

The scale of this project would not detract from the high-quality visual environment of the scenic highway/byway system. The regional landscape can accommodate the additional pavement width, earthwork and tree loss associated with this project without losing much noticeable overall visual quality. The greatest negative visual impact with this project would be that of the slope excavation for added snow storage. However, with implementation of the recommended mitigation measures, the viewing experience for highway and forest users would not be greatly diminished.

Even though visual impacts at specific locations are expected with this project, it is important to consider potential cumulative impacts associated with other construction and programmed highway improvement projects within the State Route 4 corridor.

In recent years, projects have been constructed along this corridor. However, all of the larger projects (one being the Angels Camp Bypass Project) are outside the officially designated scenic highway/byway system. Improvement projects within the system are relegated more toward maintenance-type projects (guardrails, culverts, new signs, and so on). The combined visual effect of these projects, as experienced in sequence by the highway traveler and by the forest visitor, has the potential to change the perceived character of the corridor and region. But, in most cases, typical highway

elements (signs, guardrails, and other accessories) become commonplace and go virtually unnoticed by the viewer.

Once the project is in place and its mitigation measures have been implemented and have become established, only highway users most familiar with this section of the highway would perceive that it has been changed. Frequent park users would share similar sensitivity to visual change from within the park. But, the softening effect of the proposed mitigation measures would act to absorb the visual impacts caused by construction and help restore the visual character and quality of the area.

Overall, qualities that make this highway visually enjoyable would outweigh the negative effects of the proposed changes. Retaining walls and cut slopes are expected visual features within mountainous highway areas, and they already exist along this highway in other locations. Cumulatively, the overall high quality of the visual experience along the highway corridor would not be lessened.

The potential cumulative impacts along this scenic route should continue to be assessed, and it is recommended that the effects of this project be considered as part of the analysis of future projects.

Avoidance, Minimization, and/or Mitigation Measures

To maintain the elements of visual quality and decrease the amount of negative visual impact caused by the project, the following design, construction and maintenance actions are recommended. With implementation of these mitigation methods, the visual impacts of this project can be reduced and would not result in significant changes in overall visual quality.

1. Use contour grading to simulate the natural undulating slope forms found within the regional landscape to reduce an engineered appearance. Slope rounding should be implemented in all cases.
2. Where possible, avoid extreme modification of topographic features.
3. Overall, finish slope grading with a rough appearance to create a naturally aged look (see Figure 2-17).
4. Where possible, retain existing (naturally occurring) rock outcroppings. When safe, allow isolated boulders and partially excavated rock to remain and protrude from the slope face.

5. If possible, stockpile excavated boulders, and place them randomly back into the landscape.
6. Treat rock outcroppings that are exposed during construction with stain treatment to give a weathered appearance.
7. Where possible, flatten slopes in locations where trees do not exist. In no case should excavation be performed in proximity to a tree where the end result leaves exposed tree roots. If tree roots are exposed, the tree should be completely removed.
8. As much as possible, excavate slopes to minimize tree removal.
9. Revegetate all disturbed soil areas after recontouring the landform.
10. Replace removed trees and understory where possible.
11. Replant with native species as much as possible. The Caltrans District Biologist and Landscape Architect shall work with the Calaveras Big Trees State Park biologist to determine appropriate revegetation species.
12. Undulate or feather the perimeter of tree groupings to increase the natural appearance.
13. Vary plant spacing for a more natural appearance.
14. Where possible to implement, save appropriate number of felled trees and boulders and naturally place them at random locations on disturbed areas to create an aged appearance, as determined by the Caltrans Landscape Architecture Department.
15. Collect, stockpile, and reapply duff to the excavated slopes to reduce the newly constructed look and to promote natural revegetation.
16. Apply erosion control to all disturbed soil areas.
17. Erosion control seed species, origin and application strategy shall be determined by Caltrans Landscape Architects in consultation with Caltrans District Biologists, and Calaveras Big Trees State Park.

18. Where possible, construct proposed structural elements using natural or textured natural-appearing materials (such as sculpted boulders, rocks, retaining walls, manufactured stone veneers and/or wood textured products) to best match the surrounding visual character.
19. Contour grading at the base of retaining walls should be naturalistic and designed with fill material to reduce the overall height and scale of the wall and provide a sufficient planting bed for plant reestablishment along Big Tree Creek.
20. Natural colors of brown, beige or forest green should be considered for proposed built elements.



Figure 2-17 Rough-finish Grading

2.1.6 Cultural Resources

Regulatory Setting

The term “cultural resources” as used in this document refers to all “built environment” resources (structures, bridges, railroads, water conveyance systems, and so on), culturally important resources, and archaeological resources (both prehistoric

and historic), regardless of significance. Laws and regulations dealing with cultural resources include the following.

The National Historic Preservation Act of 1966, as amended sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of National Historic Preservation Act of 1966 requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800).

On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration, State Historic Preservation Officer, and Caltrans went into effect for Department projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement implements the Advisory Council's regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The Federal Highway Administration's responsibilities under the Programmatic Agreement have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 U.S. Code 327).

The Archaeological Resources Protection Act (ARPA) applies when a project may involve archaeological resources located on federal or tribal land. This act requires that a permit be obtained before excavation of an archaeological resource on such land can take place.

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the "use" of land from historic properties. See Appendix B for specific information on Section 4(f).

Historical resources are considered under the California Environmental Quality Act, as well as California Public Resources Code Section 5024.1, which established the California Register of Historical Resources. Public Resources Code Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer before altering, transferring, relocating, or demolishing state-

owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

Affected Environment

A Historic Property Survey Report was completed for this project in December 2013.

Caltrans conducted a cultural resources inventory of historical and archaeological resources in the project area. One archaeological resource and one historic-era property were documented within the boundary of archaeological site CA-CAL-277/H.

An extended Phase I archaeological study was done to determine: 1) the presence or absence of subsurface archaeological materials, and 2) the archaeological site boundaries within the area of potential effects, which includes the entirety of the existing state right-of-way and an additional 30 feet beyond the current right-of-way. The maximum vertical area of potential effects is 12 feet below original ground at the cut-zone on the north side of State Route 4. The minimum vertical area of potential effects is 4 feet for the retaining walls. The current area of potential effects includes all known construction easements and staging areas. The area of potential effects encompasses approximately 10 acres.

Later Phase II archaeological testing determined: 1) further subsurface materials/boundaries, 2) integrity of deposits, and 3) analysis of materials recovered to determine whether CA-CAL-277/H is eligible for listing in the National Register of Historic Places. A Historic Property Survey Report was completed and submitted with the Eligibility Report to the State Historic Preservation Officer for concurrence of eligibility for CA-CAL-277/H.

The prehistoric component of CA-CAL-277/H was found eligible for inclusion in the National Register of Historic Places under Criterion D because it has yielded, or is likely to yield, information important in prehistory or history. This site is a large prehistoric site with a historic-era property on the southeastern portion of the site boundary. The site measures roughly 810 feet east-west paralleling and on either side of State Route 4. The site has nine bedrock milling stations in three locations, featuring a diverse assemblage of tools and debris. Included were obsidian and waste material from tool making, which can be used for carbon dating.

Identification of historic properties involved review and study of pertinent literature, historic property listings, and appropriate inventories and databases, as well as research at local, regional, and state archives, including California State Parks archives. Additional cultural resources studies targeted the potential for proposed retaining walls to result in direct or indirect effects to historic properties due to loss of views or to construction-related, ground-borne vibration.

The historic component is a pump house built in about 1935 by the Civilian Conservation Corps. The pump house has been identified, formally evaluated and determined to be eligible for the National Register of Historic Places.

Caltrans concluded that the pump house and related well in accordance with Section 15064.5 (a)(2)-(3) of the California Environmental Quality Act Guidelines, using criteria outlined in Section 5024.1 of the California Public Resources Code, were historical resources for the purposes of the California Environmental Quality Act. The State Historic Preservation Officer concurred with the eligibility determination on January 23, 2014.

Environmental Consequences

Both build alternatives would directly affect archaeological site CA-CAL-277/H. Construction activities would affect the contributing archaeological components of each spot. The pump house is located within the boundaries of CA-CAL-227/H.

Construction activities such as cut-and-fill, grading, and tree removal would affect both areas, as determined by the Phase II archaeological study. This study was done to determine if the site was eligible for the National Register of Historic Places. The project would adversely affect the intact two portions of CA-CAL-277/H. The pump house, which is located within the area of potential effects but outside of the area of direct impact, would not be affected by either build alternative.

CA-CAL-227/H is not a Section 4(f) resource, as it is the pre-historic component is eligible under Criterion D (value for data). The pump house is eligible under criteria C (architecture) but will not be affected by project. The park in which the site sits is a Section 4(f) property. This is addressed in Appendix B.

The State Historic Preservation Officer concurred with the eligibility determination on January 23, 2014.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans has incorporate two design exceptions to minimize our impacts to the cultural sites. Further exceptions would not be justified.

Caltrans proposes to resolve adverse effects under the terms of a Memorandum of Agreement, prepared pursuant to Stipulation XI of the Programmatic Agreement, which would be implemented with an archaeological data recovery plan.

Caltrans, as designated by the Federal Highway Administration and the State Office of Historic Preservation, would execute a Memorandum of Agreement that would determine a treatment plan to mitigate potential impacts to the affected property. The treatment plan may include data recovery, monitoring and implementation. The treatment plan would be addressed in the final environmental document.

Contributing portions of the site that would not be directly affected by construction activities would be designated environmentally sensitive area. A fence would be put around the environmentally sensitive area, and the area would be monitored by professionally qualified staff during project-related ground-disturbing activities.

It is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy to stop work in the area until a qualified archaeologist can evaluate the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to California Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact the Resident Engineer so that he or she could work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

2.2 Physical Environment

2.2.1 Water Quality and Stormwater Runoff

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The act is known today as the Clean Water Act, and Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the National Pollutant Discharge Elimination System permit requirements.

Important Clean Water Act sections are the following:

- Sections 303 and 304 require states to put forth water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the National Pollutant Discharge Elimination System, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the United States. Regional Water Quality Control Boards (regional water boards) administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and municipal separate storm sewer systems (known as MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers.

The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters.

The U.S. Army Corps of Engineers issues two types of 404 permits: general permits and standard permits.

There are two types of general permits: regional permits and nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are two types of standard 404 permits: individual permits and letters of permission. Ordinarily, projects that do not meet the criteria for a nationwide permit may be permitted under one of U.S. Army Corps of Engineers' standard permits. For standard permits, the U.S. Army Corps of Engineers' decision to approve is based on compliance with the U.S. Environmental Protection Agency's Section 404 (b)(1) Guidelines (U.S. EPA Code of Federal Regulations 40 Part 230), and whether permit approval is in the public interest.

The Section 404(b)(1) Guidelines were developed by the U.S. EPA in conjunction with the U.S. Army Corps of Engineers. They allow the discharge of dredged or fill material into the aquatic system (waters of the United States) only if there is no practicable alternative that would have less adverse effects. The guidelines state that the U.S. Army Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the United States, and not have any other significant adverse environmental consequences.

According to the guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the United States. In addition, every permit from the U.S. Army Corps of Engineers, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 Code of Federal Regulations 320.4.

A discussion of the LEDPA determination is not required for this project because wetlands are not being affected.

State Requirements: Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the Clean Water Act and regulates discharges to waters of the state. Waters of the state include more than just waters of the United States, like groundwater and surface waters not considered waters of the United States. Also, the act prohibits discharges of "waste" as defined; this definition is broader than the Clean Water Act definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by waste discharge requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the Clean Water Act.

The State Water Resources Control Board (the State Board) and regional water boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act and regulating discharges to ensure compliance with the water quality standards. Details on water quality standards in a project area are contained in the applicable regional water board's Basin Plan.

In California, regional boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, the State Board identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with Clean Water Act Section 303(d).

If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (National Pollutant Discharge Elimination System permits or waste discharge requirements), the act requires the establishment of total maximum daily loads (TMDLs), which specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The State Board administers water rights, sets water pollution control policy, issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving basin plans, total maximum daily loads,

and National Pollutant Discharge Elimination System permits. Regional water boards are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollutant Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems (MS4)

Section 402(p) of the Clean Water Act requires the issuance of National Pollutant Discharge Elimination System permits for five categories of stormwater discharges, including Municipal Separate Storm Sewer Systems (known as MS4s). The U.S. EPA defines an MS4 as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that are designed or used for collecting or conveying stormwater.” The State Board has identified Caltrans as an owner/operator of an MS4 pursuant to federal regulations. Caltrans’s MS4 permit covers all Department rights-of-way, properties, facilities, and activities in the state.

The State Board or the regional water boards issue National Pollutant Discharge Elimination System permits for five years; permit requirements remain active until a new permit has been adopted.

Caltrans’s MS4 permit, under revision at the time of this update, contains three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (see below).
2. Caltrans must implement a year-round program in all parts of the state to effectively control stormwater and non-stormwater discharges.
3. Caltrans’ stormwater discharges must meet water quality standards through implementation of permanent and temporary (construction) best management practices (BMPs), to the maximum extent practicable, and other measures as the State Board determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Stormwater Management Plan (SWMP) to address stormwater pollution controls related to

highway planning, design, construction, and maintenance activities throughout California. The Statewide Stormwater Management Plan assigns responsibilities within Caltrans for implementing stormwater management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The Statewide Stormwater Management Plan describes the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of best management practices. The proposed project would be programmed to follow the guidelines and procedures outlined in the latest Statewide Stormwater Management Plan to address stormwater runoff.

Construction General Permit

The Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014-DWG), adopted on November 16, 2010, became effective on February 14, 2011. The permit regulates stormwater discharges from construction sites that result in a disturbed soil area of 1 acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least 1 acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than 1 acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the regional water board. Operators of regulated construction sites are required to develop stormwater pollution prevention plans; implement sediment, erosion, and pollution prevention control measures; and obtain coverage under the Construction General Permit.

The 2011 Construction General Permit separates projects into risk levels 1, 2, and 3. Risk levels are determined during the planning and design phases. They are based on potential erosion and transport to receiving waters. Requirements apply according to the risk level determined. For example, a risk level 3 (highest risk) project would require compulsory stormwater runoff pH and turbidity monitoring, plus before-construction and after-construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Stormwater Pollution Prevention Plan (SWPPP). In accordance with Caltrans's standard specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with disturbed soil area less than 1 acre.

Section 401 Permitting

Under Section 401 of the Clean Water Act, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are Clean Water Act Section 404 permits issued by the U.S. Army Corps of Engineers. The 401 permit certifications are obtained from the appropriate regional water boards, depending on the project location, and are required before the U.S. Army Corps of Engineers issues a 404 permit.

In some cases, the regional water boards may have specific concerns with discharges associated with a project. As a result, the regional water boards may issue a set of requirements known as waste discharge requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. The waste discharge requirements can be issued to address both permanent and temporary discharges of a project.

Affected Environment

An Air, Water, and Noise Report was completed in July 2013.

The project area sits within the Upper Calaveras Hydrologic Unit 33.30. Big Tree Creek is the main water body in the project area.

In this area, Caltrans uses sand to provide traction and de-icing to reduce snow and ice. When Caltrans maintenance crews clear snow from State Route 4, their snow blowers displace the sand along with the snow over the side of State Route 4 to the bank above Big Tree Creek. When the snow melts, the sand is drops into Big Tree Creek.

Environmental Consequences

By following best management practices during construction, the proposed project would not have adverse effects on surface water or groundwater.

The project would remove a non-standard pollution source and address a violation of the National Pollutant Discharge Elimination System and Caltrans Stormwater Management Plan. Once constructed, the project would reduce the amount of sand getting into Big Tree Creek from snowmelt runoff.

Avoidance, Minimization, and/or Mitigation Measures

Best management practices would be required because a soil disturbance area greater than 1 acre is anticipated. The following would be required:

- A notice of intention would be submitted to the appropriate regional water quality control board at least 30 days prior to start of construction.
- A stormwater pollution prevention plan would be prepared and implemented during construction to the satisfaction of resident engineer. The plan would be approved by Caltrans prior to start of construction. Caltrans would then submit the plan to the Regional Water Quality Board for approval.
- A notice of termination shall be submitted to the regional water quality control board on completion of construction and site stabilization. A project will be considered complete when the criteria for final stabilization defined in the construction general board permit are met.

2.3 Biological Environment

2.3.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species.

Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Wetlands and other waters are discussed below in Section 2.3.2.

Affected Environment

A Natural Environment Study was completed in December 2013.

Two natural communities in the study area would be affected by the project: riparian habitat along Big Tree Creek and montane hardwood conifer. Neither of these is considered a critical habitat under the Federal Endangered Species Act.

Riparian

Riparian habitat is the area surrounding bodies of fresh water, such as creeks, rivers and streams. A narrow corridor of riparian habitat is present along Big Tree Creek,

both within the project area and elsewhere. The canopy within this riparian corridor consists mostly of two species: Pacific dogwood and white alder. The understory consists of plant species such as the common yellow monkeyflower, western bracken fern, corn lily, and stream boykinia. Conifers are scattered within this riparian zone.

Montane Hardwood Conifer habitat

Montane hardwood conifer habitat hosts and supports a variety of wildlife species. Mature forests are valuable to cavity-nesting birds, with acorns and pine nuts an important food source for many mammals as well as birds. Canopy cover and understory vegetation vary, which makes the habitat suitable for many species. Conifer seeds and needles, bark, acorns, and the leaves and berries of various evergreen shrubs provide food for animals that are active during the winter such as the western gray squirrel, deer mouse, American porcupine, mountain quail, mountain chickadee, golden-crowned kinglet, brown creeper, and red-breasted nuthatch.

This habitat supports hardwoods such as black oak (*Quercus kelloggii*) and conifers such as ponderosa pine, incense-cedar, sugar pine, and white fir. Shrubs within the project area consist of greenleaf manzanita, mountain whitethorn, and deerbrush.

Environmental Consequences

The project would affect this montane hardwood conifer community by removing mature trees. Caltrans addresses impacts to conifers only if the conifers are within riparian habitat. Table 2.1 shows impacts to riparian habitat and conifers within the riparian habitat.

Table 2.1 Comparison of Habitat Impacts by Alternative

Alternative	Riparian	Montane Hardwood Conifers
Alternative 1	3 acres*	126 trees*
Alternative 2	No impact	No impact
No-Build Alternative	No impact	No impact

* These are approximate acreage and numbers

This project is not expected to contribute to habitat fragmentation or affect any established wildlife corridors.

Cumulative Impacts

The loss of riparian habitat and montane hardwood conifers associated with the project would be offset by avoidance and minimization measures, and compensatory mitigation; consequently, the project would not contribute to a cumulative loss of

these habitats in the region and there would be no cumulative impacts. The project also does not create a new facility or increase the capacity of the existing system, and there is no development contingent on the project. Within a 10-mile radius, the only Caltrans project being proposed is the Arnold Curve Correction Project; if there were impacts to riparian montane hardwood conifers with that project, they would be minimal.

Avoidance, Minimization, and/or Mitigation Measures

Riparian

Caltrans would obtain a Streambed Alteration Agreement (1602) from the California Department of Fish and Wildlife. If Alternative 1 is selected, this would address riparian impacts as well as waters of the United States impacts. The Streambed Alteration Agreement would be obtained before beginning construction. Proposed mitigation for riparian habitat would replace permanently affected habitat by a ratio of 3 to 1. This mitigation can be done either through payment of fees to a riparian mitigation fund, preservation or enhancement of offsite habitat (if available), or by enhancing riparian habitat within Calaveras Big Trees State Park.

The following avoidance and minimization measures would be implemented before and during construction:

- Limit removal of riparian vegetation to the minimum amount necessary to allow for efficient project construction.
- Minimize the amount of riparian vegetation removed by installing environmentally sensitive area fencing at the outer edge of the work area on the south side of State Route 4 before any ground disturbance or other construction-related activities. The fencing would be clearly delineated on the final contract plans. Any encroachment beyond the fencing would be prohibited. The project's special provision package would provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.

Montane Hardwood Conifer

The following avoidance and minimization measures would be implemented before and during construction:

- Limit removal of conifer habitat to the minimum necessary to allow for efficient project construction.
- Install high-visibility fencing outside of the drip line of the vegetation adjacent to the work areas within this habitat to make clear the environmentally sensitive area (ESA). Any encroachment beyond the environmentally sensitive area fencing during construction would be prohibited. The environmentally sensitive area fencing would be clearly delineated on the final contract plans. The project's special provision package would provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.

2.3.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (33 U.S. Code 1344), is the main law regulating wetlands and surface waters. One purpose of the Clean Water Act is to regulate the discharge of dredged or fill material into waters of the United States, including wetlands.

Waters of the United States include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of: hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army of Engineers with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

The U.S. Army Corps of Engineers issues two types of 404 permits: general permits and standard permits. There are two types of general permits: regional permits and nationwide permits. Regional permits are issued for a general category of activities

when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are two types of standard permits: individual permits and letters of permission. Ordinarily, projects that do not meet the criteria for a nationwide permit may be permitted under one of the U.S. Army Corps of Engineers' standard permits. For standard permits, the U.S. Army Corps of Engineers' decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 Code of Federal Regulations Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines were developed by the U.S. EPA in conjunction with the U.S. Army Corps of Engineers, and allow the discharge of dredged or fill material into the aquatic system (waters of the United States) only if there is no practicable alternative which would have less adverse effects.

The guidelines state that the U.S. Army Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the United States, and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this order states that a federal agency, such as the Federal Highway Administration and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Wildlife, the State Water Resources Control Board (state board) and the Regional Water Quality Control Boards (regional water boards). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or Tahoe Regional Planning Agency) may also be involved.

Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Wildlife before beginning construction. If the California

Department of Fish and Wildlife determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required.

California Department of Fish and Wildlife jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the California Department of Fish and Wildlife.

The regional water boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The regional water boards also issue water quality certifications for impacts to wetlands and waters in compliance with Section 401 of the Clean Water Act. See the Water Quality section for more details.

Affected Environment

A Natural Environment Study was done for the project in December 2013.

The Biological Study Area, which is the entire length of the project limits extending out approximately 2000 feet from the edge of the travelled way on both sides of the road, was studied for wetlands and waters.

Big Tree Creek is a seasonal stream south of the project at a mountain meadow called the North Grove Meadow, near the Calaveras Big Trees State Park headquarters. Before approaching State Route 4, near the west end of Big Tree Creek, the creek becomes a series of springs. The springs provide permanent flow that goes downstream to the mouth of the creek at White Pines Lake. White Pines Lake is a facility of the Calaveras County Water District that impounds at the San Antonio Creek. San Antonio and Big Tree creeks are tributaries of Calaveras River.

Big Tree Creek is supplied by an aquifer that is recharged by the North Grove area. According to state park biologists, the creek levels do not fluctuate greatly.

There is a series of unnamed temporary drainages that intersect State Route 4 within the project limits. These drainages are ephemeral and flow only in direct response to precipitation. These drainages flow under State Route 4 via culverts.

Environmental Consequences

Big Tree Creek would be avoided during construction, and there would be no permanent impacts to the creek.

Both build alternatives would permanently affect up to 0.2 acre of other waters of the United States. Five culverts within the project limits would need to be replaced and extended. This work would affect unnamed temporary drainages that intersect State Route 4 within the project limits.

Table 2.2 Permanent and Direct Impacts to Other Waters of the United States

Alternative	Other Waters
Alternative 1	0.2 acre
Alternative 2	0.2 acre
No-Build Alternative	No impact

Waters of the State include all Water of the United States; it also includes waters not counted, such as ground water and isolated water bodies. However, this project will not affect any State Waters not already identified as Water of the United States.

All impacts to the drainage would be considered permanent for the sake of this project, thus there are no temporary impacts to these drainages. Impacts would require coordination between the U.S. Army Corps of Engineers, the regional water quality control board, California Department of Fish and Wildlife, and Caltrans.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans would follow all avoidance, minimization and mitigation measures that would be required by the U.S. Army Corps of Engineers and regional water quality control board permits.

Caltrans will also implement best management practices to ensure we minimize impacts to waters.

2.3.3 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) and the California Department of Fish and Wildlife are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed

or proposed for listing as threatened or endangered are not affected by this project. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully protected species and species of special concern, and U.S. Fish and Wildlife Service or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600–1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

California Spotted Owl

The California spotted owl is a California Species of Concern. These owls nest in coniferous forests, usually at elevations above 3,500 feet. They use trees with large amounts of dead or downed material.

Caltrans did protocol surveys between June 10 and August 9, 2010, using owl calls and waiting for a response. Calls were responded to on three separate occasions. It is unknown if the response was from an owl nesting in the area or on the edge of its territory. Based on the survey and past spotted owl survey experience, the survey results concluded that the three responses came from a single resident California spotted owl close to the west side of the survey/project boundary.

Northern Goshawk

The northern goshawk is a California Species of Concern. It breeds in the north Coast Ranges through the Sierra Nevada, Klamath, Cascade, and Warner mountains, in Mount Pinos and San Jacinto, and in San Bernardino, and the White Mountains. Northern goshawks remain year-round in breeding areas as an uncommon resident. They prefer middle and higher elevations, and mature, dense conifer forests.

Surveys have not identified goshawks within the project area. The last nesting pair was observed in the North Grove about 13 years ago.

Foothill Yellow-legged Frog

The foothill yellow-legged frog is a California and Federal Species of Concern. It occurs in the Coast Ranges of California from the Oregon border south to the transverse mountains in Los Angeles County, in most of Northern California west of the Cascade Crest, and along the western flank of the Sierra south to Kern County. The historical elevation range of this species in California extends from sea level to 6,000 feet. However, 5,000 feet is generally considered the upper elevation limit of this species in the Sierra Nevada.

Suitable breeding and upland habitat for the foothill yellow-legged frog was observed at the three sites surveyed along Big Tree Creek, and the proposed project is within the range of this frog, though at its higher elevation limit.

Western Red Bat

The western red bat is a California Species of Concern. The distribution of this bat extends from southern British Columbia through the western U.S., Mexico, Central America, and South America.

Potential roosting and foraging habitat is located within the study area. Breeding habitat is absent because breeding females are confined to low elevation, cottonwood/sycamore and oak-dominated riparian habitat.

Migratory Birds

The migratory Bird Treaty Act (16 United States Code 703) protects migratory birds, their occupied nests, and their eggs. The project area contains trees and shrubs which may provide potential nesting habitat for birds protected under the Migratory Bird Treaty Act.

Environmental Consequences

California Spotted Owl

Potential roosting, foraging, and nesting habitat for California spotted owl are located within the biological study area. A direct and permanent impact would be the removal of potential nesting habitat (trees). Indirect and temporary impacts would be disruption of foraging, nesting, and reproduction activities due to construction-related noise.

However, with the implementation of avoidance and minimization measures, impacts to the California Spotted owl are not anticipated.

Northern Goshawk

Potential roosting, foraging, and nesting habitats are located within the BSA. A direct and permanent impact would be the removal of potential nesting habitat (trees).

Indirect/temporary impacts would be disruption of foraging, nesting, and reproduction activities due to construction-related noise.

However, with the implementation of avoidance and minimization measures, impacts to the Northern goshawk are not anticipated.

Foothill Yellow-legged Frog

Because suitable breeding habitat exists within the study area, Foothill yellow-legged frog could be present within the project area.

No direct or permanent impacts are anticipated since Big Tree Creek and adjacent habitat will be avoided during construction.

Indirect or temporary impacts from project construction would be a disruption of foraging and breeding activities due to construction-related noise and a decrease in water quality of Big Tree Creek due to erosion caused by the removal of vegetation for initial clearing, grubbing, and grading activities.

However, with implementation of avoidance and minimization measures, impacts to the foothill yellow-legged frog are not anticipated.

Western Red Bat

Potential roosting and foraging habitat for Western red bat is located within the biological study area. A direct and permanent impact would be the removal of potential roosting habitat (shrubs/trees). Indirect/temporary impacts would be disruption of foraging and roosting activities due to construction-related noise.

Breeding habitat is absent since breeding females are confined to low elevation, cottonwood/sycamore and oak dominated riparian habitat (Pierson *et al.* 2006).

With implementation of avoidance and minimization measures, impacts to the western red bat are not anticipated.

Migratory Birds

Removal of trees, shrubs, and other vegetation, operation of the roadway, and construction-related activities (i.e. noise, disturbance, and ground vibrations) may impact migratory birds due to the loss of possible nest sites, nests and any associated eggs and/or nestlings. Vegetation removal would be considered a direct/permanent impact, and indirect/temporary impacts would be disruption of foraging, nesting, and reproduction activities due to construction-related noise.

However, with implementation of avoidance and minimization measures, impacts to migratory birds are not anticipated.

Avoidance, Minimization, and/or Mitigation Measures

California Spotted Owl

The following avoidance and minimization measures would be implemented:

1. Conduct a second protocol-level survey within the spring and summer prior to construction. If active nest sites are observed, data collected from this survey would aid in minimizing and avoiding impacts to nesting owls during project construction, which will be done in coordination with California Department of Fish and Wildlife.
2. Retain a qualified biologist prior to construction and any ground disturbance activities to conduct an education program that includes a description of the California spotted owl and general protection measures to be implemented to protect the species.
3. Assign a qualified biologist to conduct a pre-construction survey at least 14 days prior to any ground disturbance or other construction-related activities. If nests are identified, a Caltrans biologist, in coordination with the California Department of Fish and Wildlife, will determine how to proceed.
4. Establish a no-disturbance buffer of 500 feet around active nests identified during pre-construction surveys to avoid disturbance or destruction of the nest until after the breeding season, or until a biological monitor determines that the young have fledged.
5. Provide a qualified biologist to monitor the project during construction to ensure that the California spotted owl is not affected by the proposed project.

Northern Goshawk

The following avoidance and minimization measures would be implemented:

1. Conduct a second protocol-level survey within the spring and summer prior to construction. If active nest sites are observed, data collected from this survey would aid in minimizing and avoiding impacts to nesting northern goshawk during project construction.
2. Retain a qualified biologist prior to construction and any ground disturbance activities to conduct an education program that includes a description of the northern goshawk and general protection measures to be implemented to protect the species.
3. Assign a qualified biologist to conduct a pre-construction survey at least 14 days prior to any ground disturbance or other construction-related activities.
4. Establish a no-disturbance buffer of 500 feet around active nests identified during pre-construction surveys to avoid disturbance or destruction of the nest until after the breeding season, or until a biological monitor determines that the young have fledged.
5. Provide a qualified biologist to monitor the project during construction to ensure that the northern goshawk is not affected by the proposed project.

Foothill Yellow-legged Frog

The following avoidance and minimization measures would be implemented prior to and during construction:

1. Implement erosion control and slope stabilization best management practices, as defined in the project's stormwater pollution prevention plan.
2. Minimize the amount of vegetation removed.
3. Assign a qualified biologist to conduct an education program before construction and any ground disturbance activities. This education/training program shall include a description of the foothill yellow-legged frog and general protection measures to be implemented to protect this species.
4. Provide a qualified biologist to conduct a pre-construction survey at least 14 days prior to any ground disturbance or other construction-related activities.

5. Install environmentally sensitive area fencing at the outer edge of the work area on the south side of State Route 4 prior to any ground disturbance or other construction-related activities to protect foothill yellow-legged frog habitat. This is designed to ensure construction staff stays outside the sensitive areas. Any encroachment beyond the fencing during construction would be prohibited. The fencing would be clearly delineated on the final contract plans. The project's special provision package will provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.
6. Install silt fencing at the outer edge of the work area on the south side of State Route 4 to prevent any amphibians from entering the work area. The fence shall be installed prior to any ground disturbance or other construction-related activities and shall remain in place until construction is completed. This is to prevent the species from getting into the construction site. Any encroachment beyond the silt fencing during construction would be prohibited. The silt fencing would be clearly delineated on the final contract plans.
7. Assign a qualified biologist to monitor the project during construction and be responsible for ensuring that the environmentally sensitive area fencing and silt fencing are not compromised and to otherwise ensure that the foothill yellow-legged frog is not affected by the proposed project.

Western Red Bat

The following avoidance and minimization measures would be implemented prior to and during construction:

1. Minimize the amount of vegetation removed.
2. Assign a qualified biologist to conduct an education program before construction and any ground disturbance activities. This education/training program shall include a description of the western red bat and general protection measures to be implemented to protect the bat.
3. Assign a qualified biologist to conduct a pre-construction survey at least 14 days prior to any ground disturbance or other construction-related activities.

4. Install environmentally sensitive area fencing at the outer edge of the work area on the south side of State Route 4 prior to any ground disturbance or other construction-related activities to protect western red bat habitat. Any encroachment beyond the fencing during construction would be prohibited. The fencing would be clearly delineated on the final contract plans. The project's special provision package will provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.
5. Provide a qualified biologist to monitor the project during construction to ensure that the western red bat is not affected by the proposed project.

Migratory Birds

If vegetation removal is scheduled to occur during the nesting season (February 15 to September 1); a qualified biologist shall conduct preconstruction surveys within suitable nesting habitat in the biological area. The nesting bird surveys shall be conducted within 14 days prior to ground disturbance. If no active nests are detected during surveys, construction may proceed. If active nests are detected then a no-disturbance buffer shall be established around the nests identified during the preconstruction survey. If common, that is, non special-status birds are identified nesting on or adjacent to the project, a protective buffer of 100-ft buffer shall be established for non-raptors and a 300-ft buffer for raptors. No construction-related activities would be allowed to occur within this buffer area until a qualified biologist confirms that the nest is no longer active.

2.3.4 Invasive Species

Regulatory Setting

On February 3, 1999, President Bill Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” The Federal Highway Administration guidance issued August 10, 1999 directs the use of the State's invasive species list maintained by the California Invasive Species Council to define the invasive species

that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

A Natural Environment Study for the project was completed in December 2013.

Invasive species can be spread by construction equipment that is used and brought in from other sites.

Environmental Consequences

With implementation of the measures below, the project would not increase or facilitate the spread of invasive species.

Avoidance, Minimization, and/or Mitigation Measures

To minimize the risk of introducing additional non-native species into the area, weed-free erosion control applications would be used. No dry-farmed straw would be used, and certified weed-free straw would be required where erosion control straw is to be used.

In addition, hydro-seed mulch or any other erosion control application must also be certified weed-free. If a revegetation seed mix is to be used, the mix must also be certified weed-free and contain native species appropriate for the project area.

All off-road equipment would be cleaned of potential noxious weed sources (mud, vegetation) before entry into the project area to help ensure noxious weeds are not introduced into the project area. The contractor would employ whatever cleaning methods (typically with the use of a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds. Equipment would be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material.

Disassembly of equipment components or specialized inspection tools is not required.

2.3.5 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gases generated by human activity including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of greenhouse gas emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles) make up the largest source of greenhouse gas-emitting sources. The dominant greenhouse gas emitted is carbon dioxide, mostly from fossil fuel combustion.

Typically, two terms are used when discussing the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” Greenhouse gas mitigation is a term for reducing greenhouse gas emissions to reduce or mitigate the impacts of climate change. Adaptation refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).

There are four main strategies for reducing greenhouse gas emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing travel activity, 3) transitioning to lower greenhouse gas-emitting fuels, and 4) improving vehicle technologies/efficiency. To be most effective, all four strategies should be pursued cooperatively.

The following regulatory setting section outlines state and federal efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

Regulatory Setting

State

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and proactive approach to dealing with greenhouse gas emissions and climate change.

Assembly Bill 1493 (AB 1493), Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board to develop and implement

regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order (EO)S-3-05 (June 1, 2005): The goal of this executive order is to reduce California's greenhouse gas emissions to 1) year 2000 levels by 2010, 2) year 1990 levels by 2020, and 3) 80 percent below the year 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

Assembly Bill 32 (AB 32), Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 sets the same overall greenhouse gas emissions reduction goals as outlined in EO S-3-05, while further mandating that California Air Resources Board create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Senate Bill 97 (SB 97) Chapter 185, 2007, Greenhouse Gas Emissions: This bill required the Governor's Office of Planning and Research to develop recommended amendments to California Environmental Quality Act guidelines for addressing greenhouse gas emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board to set regional emissions reduction targets from passenger vehicles. The metropolitan planning organization (MPO) for each region must then develop a sustainable communities strategy that integrates transportation, land-use, and housing policies to plan for the achievement of the emissions target for their region.

Senate Bill 391 (SB 391) Chapter 585, 2009 California Transportation Plan: This bill requires the State's long-range transportation plan to meet California's climate change goals under AB 32.

Federal

Although climate change and greenhouse gas reduction are a concern at the federal level, currently no regulations or legislation have been enacted specifically addressing greenhouse gas emissions reductions and climate change at the project level. Neither the U.S. Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. The Federal Highway Administration supports the approach that climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies outlined by the Federal Highway Administration to lessen climate change impacts correlate with efforts that the state is undertaking to deal with transportation and climate change; these strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in travel activity.

Executive Order 13514 (October 5, 2009) is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

Climate change and its associated effects are also being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the “National Clean Car Program” and Executive Order 13514 - *Federal Leadership in Environmental, Energy and Economic Performance*.

The U.S. EPA’s authority to regulate greenhouse gas emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that greenhouse gases meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court’s ruling, the U.S. EPA

finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions. The U.S. EPA in conjunction with National Highway Traffic Safety Administration issued the first of a series of greenhouse gas emission standards for new cars and light-duty vehicles in April 2010.

The U.S. EPA and the National Highway Traffic Safety Administration are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced greenhouse gas emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever greenhouse gas regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle greenhouse gas regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce greenhouse gas emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On August 28, 2012, the U.S. EPA and National Highway Traffic Safety Administration issued a joint final rule to extend the national program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model year 2017-2025 standards, this program is projected to save about 4 billion barrels of oil and 2 billion metric tons of greenhouse gas emissions.

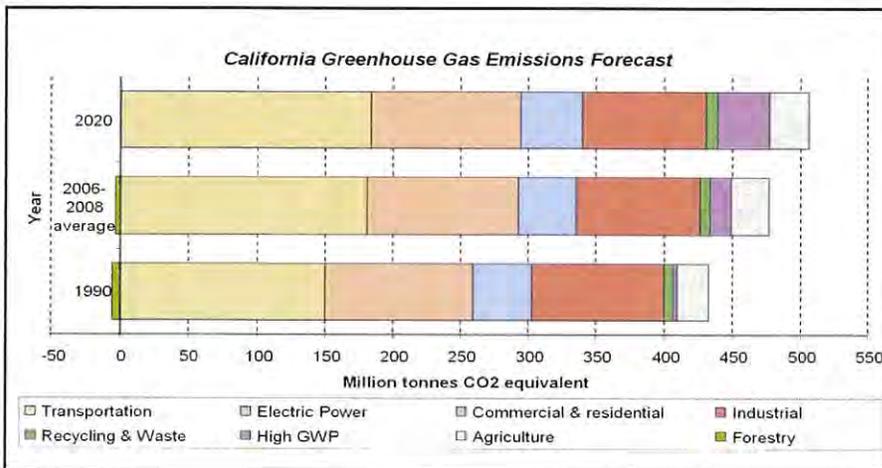
The complementary U.S. EPA and National Highway Traffic Safety Administration standards that make up the Heavy-Duty National Program apply to combination tractors (semi trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). Together, these standards will cut greenhouse gas emissions and domestic oil use significantly. This program responds to President Barack Obama's 2010 request to jointly establish greenhouse gas emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards will reduce carbon dioxide emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy-duty vehicles.

Project Analysis

An individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of greenhouse gases. In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable” (CEQA Guidelines Sections 15064(h)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects to make this determination is a difficult, if not impossible, task.

The AB 32 Scoping Plan mandated by AB 32 includes the main strategies California will use to reduce greenhouse gas emissions. As part of its supporting documentation for the draft scoping plan, the California Air Resources Board released the greenhouse gas inventory for California (forecast last updated: October 28, 2010). The forecast (see Figure 2-18) is an estimate of the emissions expected to occur in 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the greenhouse gas inventory for 2006, 2007, and 2008.

Figure 2-18 California Greenhouse Gas Forecast



Source: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

Caltrans and its parent agency, the Transportation Agency, have taken an active role in addressing greenhouse gas emission reduction and climate change. Recognizing that 98 percent of California's greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human-made greenhouse gas emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans (published in December 2006).

The purpose of the proposed project is to widen State Route 4 to provide space for snowfall and reduce non-stormwater pollution caused by melted snow runoff carrying roadway de-icing debris into Big Tree Creek. Because this project would not change the lane configuration or the capacity of the existing roadway, no increases in operational greenhouse gas emissions are anticipated. However, construction emissions would be unavoidable.

Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction greenhouse gas emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the greenhouse gas emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

California Environmental Quality Act Conclusion

While the project will result in a slight increase in greenhouse gas emissions during construction, it is anticipated that the project will not result in any increase in operational greenhouse gas emissions. While it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and California Environmental Quality Act significance, it is too speculative to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale to climate change, Caltrans is firmly committed

to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

Caltrans continues to be involved on the Governor's Climate Action Team as the California Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from then-Governor Arnold Schwarzenegger's Strategic Growth Plan for California. The Strategic Growth Plan targeted a significant decrease in traffic congestion below 2008 levels and a corresponding reduction in greenhouse gas emissions, while accommodating growth in population and the economy. The Strategic Growth Plan relies on a complete systems approach to attain carbon dioxide reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as shown in Figure 2-19 Mobility Pyramid.

Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high-density housing along transit corridors. Caltrans works closely with local jurisdictions on planning activities, but does not have local land use planning authority. Caltrans assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that control of fuel economy standards is held by the U.S. EPA and California Air Resources Board.



Figure 2-19 Mobility Pyramid

Caltrans is also working toward enhancing the State's transportation planning process to respond to future challenges. Similar to requirements for regional transportation plans under Senate Bill (SB) 375 (Steinberg 2008), SB 391(Liu 2009) requires the State's long-range transportation plan to meet California's climate change goals under Assembly Bill 32.

The California Transportation Plan is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas emissions. The California Transportation Plan defines performance-based goals, policies, and strategies to achieve our collective vision for California's future, statewide, integrated, multimodal transportation system.

The purpose of the California Transportation Plan is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the California Transportation Plan 2040 will identify the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the State's transportation needs.

Table 2.3 summarizes the local and statewide efforts that Caltrans is implementing to reduce greenhouse gas emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).

Climate Change (June 22, 2012) is intended to establish a Caltrans policy that will ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities.

Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

Table 2.3 Climate Change/CO₂ Reduction Strategies

Strategy	Program	Partnership		Method/Process	Estimated CO ₂ Savings Million Metric Tons (MMT)	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Caltrans	Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements & Intelligent Transportation System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	0.07	2.17
Mainstream Energy & GHG into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CalEPA, ARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	0.0045	0.0065 0.045 0.0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	0.117	0.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries	2.5 % limestone cement mix	1.2	4.2	
			25% fly ash cement mix	0.36	3.6	
			> 50% fly ash/slag mix			
Goods Movement	Office of Goods Movement	Cal EPA, ARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.18

The following measures would also be included in the project to reduce the greenhouse gas emissions and potential climate change impacts from the project:

1. Landscaping reduces surface warming and, through photosynthesis, decreases carbon dioxide (CO₂). The project proposes planting in the intersection slopes, drainage channels, and seeding in areas next to frontage roads as well as planting a variety of different-sized plant material and scattered skyline trees where appropriate (but not to obstruct the view of the mountains). Caltrans has committed to planting at least 40 trees. These trees will help offset any potential carbon dioxide emissions increase.
2. The California Air Resources Board restricts idling of diesel off-road vehicles to no more than five consecutive minutes, unless the vehicle is idling for specific circumstances defined in the regulation or a waiver has been granted.

Adaptation Strategies

Adaptation strategies are ways that Caltrans and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires.

These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Interim guidance has been released by the Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a way to initiate action and discussion of potential risks to the state's infrastructure due to projected sea level rise.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency (now the Transportation Agency) to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. Caltrans continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

The proposed project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

Chapter 3 **Comments and Coordination**

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including: Project Development Team meetings, interagency coordination meetings, and public meetings.

This chapter summarizes the results of the Department's efforts to identify, address and resolve project-related issues through early and continuing coordination.

California Department of Parks and Recreation

September 9, 2010—Caltrans received a permit to conduct archaeological investigations/collections from the California Department of Parks and Recreation to conduct archaeology studies.

August 1, 2014— Office of Grants and Local Services with the California Department of Parks and Recreation sent a letter (See Appendix F) indicated that while the project is within land protected under the Land and Water Conservation Fund (Section 6(f)), the use of that parcel was not incompatible with recreation uses nor change or restrict access to the park the project would not constitute a conversion of Section 6(f) property.

Calaveras Big Trees State Park

February 8, 2010—Caltrans spoke with Ms. Patricia Raggio (Environmental Scientist) concerning biological resources and surveys within the Calaveras Big Trees State Park. She indicated that, while some California red-legged frog sightings were recorded in the 1950s, identification was questionable. No California red-legged frogs have been identified within Big Tree Creek since, and the species was deemed completely gone from the park. Park personal have conducted surveys for the Pacific fisher and it, too, is thought to be completely gone from the park.

September 9, 2010—Caltrans received from SP the signed DPR 412A Permit to Conduct Extended Phase I (XPI) Archaeological Investigations within Calaveras Big Trees State Park.

October 12-13, 2010—Caltrans completed the XPI investigation at two archaeological sites within the proposed project's APE. Native American monitors were present both days.

January 26, 2011—Caltrans mailed a letter to Jess Cooper, SP District Superintendent, at Central Valley District, describing the proposed construction project, consultation efforts with State Parks to this date, and outlining the history of archaeological investigations performed by Caltrans. This letter also brought to his attention the likelihood of a Phase II eligibility evaluation of the archaeological sites recorded and tested.

April 4, 2011—A meeting was held between Caltrans and the Calaveras Big Trees State Park staff to discuss project issues and concerns, including impacts to the campground, impacts to cultural resources, and the concern that the entire park is a Section 6(f) property.

June 1, 2011—Caltrans met with representatives of Calaveras Big Trees State Park. At that meeting, park staff requested documentation of the scientific quantitative data showing the degradation of the aquatic habitat from sand and salt.

June 14, 2011—Caltrans sent a response to comments the park staff made at the June 1, 2011 meeting. In the letter, Caltrans explained how the National Pollutant Discharge Elimination System permit was violated and noted that the regional water quality control board intends to enforce the permit.

On June 24, 2010—Caltrans and California State Parks (SP) met at Calaveras Big Trees SP. This meeting was informal and provided SP with proposed project overview and provided Caltrans an understanding of State Park's expectations and requirements.

February 28, 2011—A letter from Liz Steller, SP-District Services Manager, Central Valley District, was received listing a series of elements and requests regarding project environmental review process/procedures and documentation needed going forward.

April 4, 2011—Meeting was held to strengthen communication and create a partnership between Caltrans Project Delivery Team (PDT) and SP staff.

July 7, 2011—Caltrans received a letter from Liz Steller, stating that the park did not feel that Caltrans had made the case for the need of the project and that the park would no longer proceed on permits or reviews. The park felt that Caltrans should study the impacts of the sand that's getting into the creek.

March 21, 2012— A project team meeting was held with Calaveras Big Trees State Park staff. Caltrans provided maps and a project description. Park staff expressed concerns about project impacts to the campgrounds, particularly noise impacts. Park staff members were also concerned about visual impacts to the Ebbetts Pass corridor and to cultural and biological resources.

August 2, 2012—Caltrans sent layouts of the project from the public meeting and identified times that would be best to conduct noise studies.

November 19, 2012—Caltrans received from SP the signed DPR 412A Permit to Conduct Phase II Eligibility Investigations within Calaveras Big Trees State Park.

April 12, 2013— Caltrans received a table of information from Calaveras Big Trees State Park about issues with the project. The table outlined some of the park's main concerns: loss of trees and habitat, impact to wildlife, loss of land/soil and rock formation, cultural resources, impact to camping experience and park ambience, noise impacts, loss of campsites, and visual impacts.

April 12, 2013—Caltrans received a copy of the letter sent to Liz Steller from the State Parks Land and Conservation Fund Manager concerning Section 6(f). The letter indicated that the entire park—not just the area originally purchased—was under Section 6(f) protection.

April 24, 2013—Caltrans sent an email asking Calaveras Big Trees State Park when noise is an issue at North Grove campground.

April 27, 2013— Caltrans received an email from Calaveras Big Trees State Park about traffic and noise at North Grove campground. The email indicated times when park staff felt traffic and noise impacts were most prevalent.

June 12, 2013—Caltrans invited SP Staff and Archaeologist to visit and/or participate in the Phase II investigation scheduled for June 18-28, 2013.

June 18-28, 2013—Consultant completed Phase II eligibility evaluation testing at archaeological site(s) within the proposed project's APE.

July 11, 2013—Caltrans received a letter outlining the impacts to address in the environmental document. The concerns included: impacts to park revenue, park facilities, and campgrounds; concerns over the impact to the septic field; visual impacts; the need to change the general plan; cultural and biology impacts.

July 24, 2013—Caltrans sent an email to Liz Steller (Park Supervisor) about the location of a septic leach field, noting that the project would not affect it.

December 18, 2013—HPSR mailed to Linda-Dick Bissonnette, Cultural Resources Specialist, at SP. Additional copies mailed to Liz Steller, SP-District Services Manager.

February 21, 2014: Caltrans mailed DRAFT Finding of Adverse Effects (Draft FOE) package to SP for distribution to designated staff for review and comment.

April 1, 2014—Caltrans received email notice from Liz Steller, District Services Manager, Central Valley District, State Parks, stating that California SP has no questions and/or concerns with the DRAFT FOE package.

April 28, 2014—Caltrans and Calaveras Big Trees State Park meet to discuss the project. Caltrans indicated an interest in the park agreeing to a De Minimis determination. The park staff indicated their interest in the following issues: the relocation of the campsites along State Route 4 and improving pedestrian access across State Route 4. Caltrans indicated it would look at traffic calming solutions that would not affect the project limits. Also discussed was locations for the Section 6(f) replacement property. The park staff indicated they would send a letter indicating their estimates for the campground relocation.

May 15, 2014—Calaveras Big Trees State Park sent a letter to Caltrans. The letter outlined mitigation they were requesting: habitat and tree replacement, invasive species control, relocation of 20 campgrounds, curate of cultural resources, left turn pocket for road to campground and pedestrian undercrossing from the campground to staff parking.

June 23, 2014—Calaveras Big Trees State Park staff meet with Caltrans district director their concerns about dropping Alternative one.

July 10, 2014—Calaveras Big Trees State Park sent letter indicating that Alternative 2 would be unacceptable to the park due to visual and noise impacts. They also counted our proposal with the following outstanding issues: a Section 4(f) De Minimis would be acceptable if Caltrans and Calaveras State Park can agree out appropriate mitigation, the relocation of eleven campsites are being now being proposed, would like to use the state parks execution of transfer of jurisdiction, requested restoration for disturbed habitat and documentation of cultural resources. The letter also indicated that park is in contact with National Parks Service with regard to the Land and Water Conservation Fund and its restrictions. They are trying to find a way to exempt the project from the restrictions.

August, 2014—Calaveras Big Trees State Park sent letter outlining the following issues: the campground would require a higher document than a negative declaration, additional construction would be required to comply with the American with Disabilities Act, utilities would need to be upgraded, the new sites would need to have a trail created to connect it to existing pedestrian trails, and they reduced the number of relocations to five campsites.

U.S. Fish and Wildlife Service

May 4, 2012—A sensitive species list was obtained from the U.S. Fish and Wildlife Service Sacramento office. Later studies indicated that there were no federally listed threatened or endangered species affected by the project. And only one species of concern, the Yellow-legged frog.

U.S. Forest Service

February 11, 2010—Ms. Melinda Benton sent Caltrans a list of federally threatened, endangered, and sensitive species from the Regional Foresters Sensitive Species List that are likely to be in or near the project area. She also noted that the California wolverine (*Gulo gulo luteus*) and Pacific fisher are highly unlikely to be present in the project area due to the project's close proximity to human disturbance and lack of credible sightings in the area.

February 9, 2011—Caltrans spoke with Ms. Melinda Benton. Caltrans described the project to Ms. Benton and discussed the potential for the Pacific fisher to be present within the project area. Ms. Benton told Caltrans that fishers require a closed canopy in old growth forests and they are sensitive to noise. Traffic on State Route 4 would be a deterrent for the fisher. She stated that monitoring stations have been set up in the Stanislaus National Forest and no fishers have been observed. She mentioned that

there have been potential sightings near the Bear Valley Ski Area, but they have not been substantiated. She stated that the nearest fisher sighting was made in the El Dorado National Forest. She also mentioned a sighting of a nesting California spotted owl near Sourgrass in Calaveras County. Ms. Benton is going to look through the Regional Foresters Sensitive Species List and provide information on sensitive species that could occur within the project area. IT was later determined to be no habitat for fisher within the project area.

February 9, 2011—Caltrans sent Ms. Benton a project description and mapping.

February 10, 2011—Caltrans spoke with Mr. Derrick Bowden. He told Caltrans that the project is located in a transitional zone (elevation) between the foothill yellow-legged frog and Sierra Nevada yellow-legged frog (*Rana sierrae*) (formerly known as the mountain yellow-legged frog). The project is also located within the upper range of the California red-legged frog (*Rana aurora draytonii*). He recommended Caltrans look at the recovery plan for the red-legged frog.

He recommended examining the downstream effects of the proposed project on the aquatic species. Caltrans told Mr. Bowden that silt fencing and environmentally sensitive area fencing would be used to avoid and minimize potential temporary impacts to the aquatic habitat of Big Tree Creek. He agreed with these measures. He did express concerns with sedimentation during the reproduction period of the frogs. He recommended that Caltrans look for egg masses in the creek prior to the implementation of the project. Caltrans told Mr. Bowden that pre-construction surveys and monitoring would be done.

California Department of Fish and Wildlife

February 8, 2011— Caltrans told Mr. Nossal of the California Department of Fish and Wildlife that the project would affect riparian and conifer habitat next to Big Tree Creek. Caltrans inquired about mitigation for impacts to these habitats. Mr. Nossal stated that removal of conifers may be beneficial and enhance the riparian habitat. He said that riparian habitat is usually mitigated at a 3:1 ratio. Caltrans stated that replanting onsite would be difficult due to space constraints and inquired if Mr. Nossal had any recommendations. Mr. Nossal stated that a potential mitigation strategy would be to enhance riparian habitat (in kind) within the park.

February 9, 2011—Caltrans sent Mr. Nossal a project description and mapping. Caltrans also requested mitigation ratios for removal of black oaks (*Quercus*

kelloggii). The black oaks were later determined to be mitigated as part of the riparian habitat.

February 9, 2011—Caltrans received an email from Mr. Nossal, who stated that mitigation for conifers depends on the individual trees onsite. A tree with a nest cavity that can harbor owls or mesocarnivores would be treated differently than a stand of crowded, stunted trees. He requested that Caltrans take a look at mitigation on past projects. This was done in evaluating our impacts in the Natural Environment Study.

Mr. Nossal listed various mitigation options for oaks. in the past, including inch-for-inch diameter replacement for trees greater than 12 inches in diameter at breast height (dbh); 3:1 replacement for oaks 4-12 inches in diameter at breast height; 10:1 replacement, and 2 acres of habitat created or enhanced for every 1 acre removed. He stated that it depends on the details of the site being affected.

State Historic Preservation Officer (Cultural Resources)

There has been substantial coordination with the State Historic Preservation Officer per Section 106 of the National Historic Preservation Act. The correspondence is summarized as follows (refer to Appendix D for related correspondence):

Caltrans submitted the Historic Property Survey Report to the State Historic Preservation Officer on December 12, 2013. The document determined the Area of Potential Effects (APE); identified cultural resources located within the Area of Potential Effects, and provided an evaluation of properties for eligibility to the National Register of Historic Places. Caltrans identified one archaeological site within the Area of Potential Effects eligible for listing in the National Register of Historic Places and one historic-period properties within the architectural Area of Potential Effects that have either been listed on or determined eligible for listing in the National Register of Historic Places.

On January 23, 2014, the State Historic Preservation Officer concurred on the adequacy of the identification effort and the revised and current eligibility determinations.

California Native American Heritage Commission

March 3, 2009—Caltrans sent a request for a renewed Sacred Lands Request and Native American Referral for the project to update the 2001 requested results and contact list.

May 13, 2009—The California Native American Heritage Commission failed to indicate the presence of Sacred Lands and provided the following contacts (note: the spelling of Miwok, Miwuk and Mi-Wuk in the following list and the rest of this document represents the chosen spelling for that specific group or entity):

- Honorable Chairperson Matthew Franklin, Ione Band of Miwok Indians
- Honorable Chairperson Burley, California Valley Miwok Tribe
- Chairwoman Gloria Jeff Grimes, Calaveras Band of Miwuk Indians
- Ms. Arvada Fisher, Vice Chair, Calaveras Co. Mountain Miwok Indian Council
- Ms. Debra Grimes, Specialist for Calaveras Band of Miwuk Indians
- Ms. Lois Williams, Calaveras Band of Mi-Wuk Indians
- Ms. Billie Blue, Ione Cultural Heritage Committee Chairman

Native American Coordination

Consultation with Native American groups and individuals has been conducted through letters, phone conversations, email correspondence, mailings, meetings and field visits since 2009. Based upon the Cultural Studies Request of 2009, of a proposed Storm Water Mitigation project and area limits, a consultation effort beginning with a letter requesting a Sacred Lands Search was sent to the Native American Heritage Commission (NAHC) was sent on March 3, 2009.

On March 19, 2009, Caltrans received the Sacred Lands Search results, which was which did not identify historic properties within the project limits, and the NAHC provided Caltrans with a current list of Native American contacts to consult with further. The NAHC Contact list included the following:

- Chairperson Gloria Grimes, Calaveras Band of Miwuk Indians
- Debra Grimes, Cultural Resources Specialist, Calaveras Band of Miwuk Indians
- Ms. Arvada Fisher, Vice Chair, Calaveras Co. Mountain Miwok Indian Council
- Honorable Chairperson Matthew Franklin, Ione Band of Miwok Indians
- Ione Band of Miwok Indians, Heritage Cultural Committee

- Silvia Burley, California Valley Miwok Tribe

In August of 2009, Caltrans District Native American Coordinator (DNAC) sent letters with maps requesting information from the individuals on the NAHC Contact list, as well as those on the D10 Native American Consultation list, as follows:

- Chairperson Gloria Grimes, Calaveras Band of Miwok Indians
- Debra Grimes, Cultural Resources Specialist, Calaveras Band of Miwok Indians
- Ms. Arvada Fisher, Vice Chair, Calaveras Co. Mountain Miwok Indian Council
- Honorable Chairperson Matthew Franklin, Ione Band of Miwok Indians
- Ione Band of Miwok Indians, Heritage Cultural Committee
- Silvia Burley, California Valley Miwok Tribe
- Ms. Lois Williams, Calaveras Band of Mi-Wuk Indians
- Mr. Nicolas Villa Jr., Chief, Ione Band of Miwok of the Yung-Buu-tee Village
- Ms. Billie Blue, Ione Cultural Heritage Committee (Former) Chair

Of the above individuals consulted, only two individuals responded--Ms. Billie Blue wished to defer their tribe's comments to the tribes in Calaveras County, specifically to Debra Grimes. Ms. Grimes responded by email on November 19, 2009, requesting a field visit. We assured Ms. Grimes that we would coordinate another field visit prior to the anticipated Phase II eligibility evaluation testing.

In 2010, Caltrans DNAC requested an updated list of Native American contacts from the NAHC. That list included the following additional individuals:

- Rhonda Morningstar Pope, Chairperson, Buena Vista Rancheria
- Charles Wilson, Chairperson, Calaveras Band of Mi-Wuk Indians
- Briana Creekmore, Cultural Committee, Miwok

- Ms. Dolores Turner, Chairperson, Calaveras Co. Mountain MiWuk Indian Council

On May 13, 2010—Caltrans held a meeting with Briana Creekmore and other member of the Miwok community in West Point, CA. The meeting discussed all proposed Caltrans' projects in Calaveras County going forward. Ms. Creekmore and Pete Ramirez stated that they had a deep interest in the Big Tree Creek Storm Water Compliance Project.

September 30, 2010—Caltrans DNAC sent follow up letters describing the proposed Storm Water Compliance project and a notification of the proposed Extended Phase I (XPI) investigation to the individuals listed above in the 2009/10 contact list.

November 22, 2010—Caltrans DNAC sent letters out to the contacts of the 2009/10 list requesting any information and/or concerns regarding the project. No responses were received by Caltrans.

December 7, 2010—Caltrans met with Ms. Grimes and tribal representative to discuss the project and proposed XPI activities. Ms. Grimes stated that she had information about the project area, but did not want to share with Caltrans.

December 10, 2010—Caltrans DNAC mailed the DRAFT ASR/XPI Report to the individuals listed above on the 2009/10 contact list. The DNAC requested their participation in the review of the reports and if they had any questions, concerns, or information to add. No responses were received by Caltrans for the 30-day review period.

January 4, 2011—Caltrans DNAC placed follow up calls to the individuals who were sent the DRAFT ASR/XPI Report and asked if there were any questions and/or concerns? Mr. Villa Jr. responded by deferring his comments to Debra Grimes. No other responses were received by Caltrans.

May 20, 2011—Caltrans sent letters to the individuals listed on the 2009/10 contact list to notify those individuals of the proposed Phase II eligibility evaluation investigation.

June 8, 2011—Caltrans sent the Archaeological Evaluation Proposal (AEP) to the following:

- Ms. Dolores Turner, Chairperson, Calaveras Co. Mountain MiWuk Indian Council
- Ms. Gloria Jeff Grimes, Chairperson, Calaveras Band of Me-Wuk
- Mr. Johnny “Gil” Jamerson, (Former) Chairperson Ione Band of Miwok Indians
- Ms. Billie Blue, Ione Cultural Heritage Committee (Former) Chair
- Mr. Charles Wilson, Chairperson, Calaveras Band of Mi-Wuk Indians
- Ms. Silvia Burley, Chairperson, California Valley Miwok Tribe
- Mr. Nicolas Villa Jr., Chief, Ione Band of Miwok of the Yung-Buu-tee Village
- Ms. Dolores Turner, Chairperson, Calaveras Co. Mountain MiWuk Indian Council
- Ms. Lois Williams, Calaveras Band of Mi-Wuk Indians
- Ms. Debra Grimes, Director, Cultural Preservation Specialist, California Valley Miwok Tribe

No responses were received by Caltrans regarding the review of the AEP provided to the above individuals.

October 12, 2012—Caltrans D10 DNAC provided a project update letter that included a description of all the alternative construction design summaries being considered, as well as an additional copy of the AEP to:

- Ms. Dolores Turner, Chairperson, Calaveras Co. Mountain MiWuk Indian Council
- Ms. Gloria Jeff Grimes, Tribal Chairperson, Calaveras Band of Me-Wuk
- Mr. Johnny “Gil” Jamerson, (Former) Chairperson Ione Band of Miwok Indians
- Ms. Billie Blue, Ione Cultural Heritage Committee (Former) Chair

- Mr. Anthony Burris, Cultural Heritage Committee Chair, Ione Band of Miwok Indians
- Ms. Silvia Burley, Chairperson, California Valley Miwok Tribe
- Ms. Briana Creekmore, Miwok
- Ms. Dolores Turner, Chairperson, Calaveras Co. Mountain MiWuk Indian Council
- Ms. Lois Williams, Calaveras Band of Mi-Wuk Indians
- Ms. Debra Grimes, Director, Cultural Preservation Specialist, California Valley Miwok Tribe
- Mr. Darrel Cruz, CRO/THPO Director, Washoe
- Ms. Roselynn Lwenya, THPO / DCR Buena Vista Rancheria
- Ms. Rhonda Morningstar-Pope, Chairperson Buena Vista Rancheria
- Mr. Charles Wilson, Chairperson, Calaveras Band of Mi-Wuk Indians
- Honorable Chairwoman Yvonne Miller, Cultural Heritage Committee, Ione Band of Miwok Indians

October 30, 2012—Caltrans held an on-site field visit with local Miwoks: Briana Creekmore and Lawrence Wilson, Jr., Caltrans project personnel: Mary Oliva, Raymond Benson, and Tina Fulton attended. A field visit was requested by Briana Creekmore to answer concerns regarding the AEP that were mentioned in the recent Cultural Resources Investigation Report we had mailed out to the Native Americans. Lawrence Wilson Jr. felt the area was a village site and requested a copy of the Extended Phase I report (XPI). Tina Fulton, DNAC, mailed Mr. Wilson a copy of the CRI Report, of which included the XPI Report.

No responses were received by Caltrans regarding the AEP that was mailed on October 12, 2012.

Caltrans developed a Cultural Resources Investigation (CRI) Report explicitly for consultation. The intent of the CRI was to provide the reviewer a better understanding of Caltrans' efforts in providing a history of the archaeological record, current

identification efforts, with survey and testing projects, and results that have occurred within the project area limits between 2009 and 2012.

January 10, 2013—Caltrans sent the Cultural Resources Investigations Report to:

- Ms. Dolores Turner, Chairperson, Calaveras Co. Mountain MiWuk Indian Council
- Ms. Gloria Jeff Grimes, Chairperson, Calaveras Band of Me-Wuk
- Mr. Johnny “Gil” Jamerson, (Former) Chairperson Ione Band of Miwok Indians
- Ms. Billie Blue, Ione Cultural Heritage Committee (Former) Chair
- Mr. Charles Wilson, Chairperson, Calaveras Band of Mi-Wuk Indians
- Ms. Silvia Burley, Chairperson, California Valley Miwok Tribe
- Mr. Nicolas Villa Jr., Chief, Ione Band of Miwok of the Yung-Buu-tee Village
- Ms. Dolores Turner, Chairperson, Calaveras Co. Mountain MiWuk Indian Council
- Ms. Lois Williams, Calaveras Band of Mi-Wuk Indians
- Ms. Debra Grimes, Director, Cultural Preservation Specialist, California Valley Miwok Tribe

December 18, 2013—Caltrans DNAC mailed copies of the Historic Property Survey Report (HPSR) to all the individuals listed above. There were no responses received by Caltrans regarding issues or concerns of the HPSR.

March 13, 2014—Caltrans DNAC received an email, phone call, and letter from Darrel Cruz, and members of the Washoe Tribe with concerns about the bedrock milling stations. They want to see the bedrock milling stations preserved in place, or moved to another location in the park.

March 26, 2014—Caltrans DNAC emailed a response to Mr. Cruz’s’ concerns.

March 28, 2014—Tina Fulton, D10 DNAC mailed copies of the DRAFT FOE package to all the individuals on the above Native American contact list, with the addition of Darrel Cruz.

April 23, 2014—Caltrans DNAC received a phone call from Darrel Cruz, Washoe Tribe requesting information about the project. The Caltrans DNAC and Archaeologist scheduled a meeting on-site, in the field on May 7, 2014 to review, and discuss the proposed project and Native American concerns. This field visit was cancelled, due to weather.

May 7, 2014—the Caltrans DNAC mailed the DRAFT Archaeological Evaluation Report (Draft AER) to:

- Chairperson Gloria Grimes, Calaveras Band of Miwuk Indians
- Debra Grimes, Cultural Resources Specialist, Calaveras Band of Miwuk Indians
- Briana Creekmore, Miwok
- Mr. Darrel Cruz, THPO, Washoe Tribe of NV & CA
- Mr. Darrel Kizer, Chairperson Washoe Tribe of NV and CA
- Ms. Rhonda Morningstar-Pope, Chairperson Buena Vista Rancheria
- Ms. Roselynn Lwenya, THPO / DCR Buena Vista Rancheria
- Mr. Pete Ramirez, Miwok representing Buena Vista Rancheria and Sheep Ranch Rancheria
- Mr. Randy Yonemura, Ione Band of Miwok Indians
- Ms. Lynda Shoshone, Washoe Tribe of NV and CA

The cover letter requested comments or concerns to be directed to Raymond Benson, Project Archaeologist. Mr. Benson did not receive any communication with comments and/or concerns up to submittal of final Draft AER to consultant on June 15, 2014.

August 12, 2013 through September 2, 2013, various times—Lynda Shoshone, a member of the Washoe Tribe consulted with Caltrans DNAC. Ms Shoshone requested project information, voiced concern and comments. Two copies of the Cultural Resources Investigation report, as requested, with a cover letter and copy of emails of her request for reference.

March 13, 2014—Darrel Cruz, THPO for the Washoe Tribe of Nevada and California called, emailed, and sent a letter to Caltrans DNAC regarding the proposed outcome of the extant bedrock milling stations within the project area limits. On March 28, 2014, copies of the DRAFT Finding of Effects package were mailed to Mr. Cruz.

May 7, 2014—Mr. Cruz contacted Caltrans DNAC to discuss the following: 1) how will the contractor remove the bed rock mortar (BRMs), and where will the BRMs and soil be relocated to; and 2) will the BRMs be moved from the current location in one piece, or in pieces.

May 7, 201—a copy of the Draft Archaeological Evaluation Report (AER) was mailed to Mr. Cruz

May 30, 2014—Caltrans received a letter from Mr. Cruz stating: “after review of the [Draft FOE] report, we see that the report has taken into account our comments and concerns”.

Inter-Tribal Meetings, Consultation, and Field Work

Extended Phase I

October 12-13, 2010—Extended Phase I work was conducted. Caltrans representatives: Mary Oliva (Environmental Senior), Raymond Benson (Cultural Specialist) and Tina Fulton, Caltrans DNAC, Debra Grimes, and Adam Lewis were present for the first day, and Brian Creekmore and Lawrence Wilson Jr. were present for the second day. Several shovel test units (STU) were dug around the Bedrock Mortars resulting in the uncovering and collection of numerous stone tools, flake stone, and other cultural artifacts.

September 18, 2013—Caltrans met with Lynda Shoshone, of the Washoe Tribe of Nevada and California and her invited guests, which included the new Chairperson of the Washoe Tribe of Nevada, Darrel Kizer. Also, in attendance, was Chair woman Gloria J Grimes and Debra Grimes of the Calaveras Band of Mi-Wuk Indians. During the meeting, all of the tribal members were in agreement with regards to protecting

CA-CAL-277/H and specifically the BRMs. They did not want to see a wall put up where the BRMs were.

Phase II

May 21, 2013—Caltrans met with Far Western (Contract Consultant) and members of the invited Native American Community. This was a pre-field meeting concerning the proposed Phase II investigation at archaeological sites CA-CAL-2109 and -2104. Attendees were Eric Wolhgemuth from Far Western, Tina Fulton and Raymond Benson from Caltrans, Debra Grimes (The Calaveras Band of Miwok) and Pete Ramirez (Buena Vista Rancheria and Miwok).

June 18-27, 2013—A Phase II investigation conducted by Far Western had four archaeologist of Native American origin, who excavated, sifted and sorted archaeological materials recovered from the site areas. Debra Grimes, Adam Lewis, of the Calaveras Band of Me-Wuk and Pete Ramirez, Miwok, representing Buena Vista Rancheria and Sheep Ranch Rancheria were present as Native American monitors.

Public Information Meeting

Caltrans held a public information meeting for the State Route 4 Big Tree Creek Stormwater Compliance Project on Wednesday, August 15, 2012, from 4:00 p.m. to 7:00 p.m. at the Independence Hall Community Center at 1445 Blagen Road in Arnold in Calaveras County. An ad was placed in the *Calaveras Enterprise* on August 3, 2012 to inform the public of the meeting.

The meeting had an informal format. The public was allowed to attend and join the meeting at any time during the three-hour period between 4:00 p.m. and 7:00 p.m. Caltrans personnel sat at the entrance to greet members of the public and encourage them to sign-in. Attendees were encouraged to visit information stations located around the room and view graphics and display boards.

The meeting showed four alternatives, of which two were subsequently dropped by the project.

Roughly seven people attended; three were from the Calaveras Big Trees State Park.

Caltrans staff wrote down all comments and questions heard at the meeting. The main comment heard was this: The project is too expensive and a waste of state money.

No written comments were submitted at the meeting. Two letters and one email were received following the meeting. The letters were submitted by the California Valley Miwok Tribe and the Calaveras Big Trees State Park. The email was from a resident of Arnold opposing the project due to cost.

The draft environmental document will be circulated for a 30-day review by agencies and members of the public. Upon completion of the public review period, written responses to all issues will be prepared and made part of the final environmental document for considerations by decision-makers for the project.

Chapter 4 **List of Preparers**

This document was prepared by the following Caltrans Central Region staff:

Allam Alhabaly, Transportation Engineer. B.S., California State University, Fresno, School of Engineering; 12 years of experience in environmental technical studies, with emphasis on noise studies. Contribution: Noise Study.

Raymond Benson, Associate Environmental Planner (Archaeology). M.A., Cultural Resources Management, Sonoma State University; B.A., Anthropology, Minor in Geography, Humboldt State University; more than 25 years of archaeology and 15 years of cultural resources management experience. Contribution: Principal Investigator, Prehistoric and Historic Archaeology.

Rajeev Dwivedi, Associate Engineering Geologist. Ph.D., Environmental Engineering, Oklahoma State University, Stillwater; 20 years of environmental technical studies experience. Contribution: Air and Water Quality Study.

David Farris, Associate Environmental Planner. B.S., Environmental Biology and Management, University of California at Davis; 2 years of preliminary environmental analysis experience; 11 years of environmental planning experience. Contribution: Wrote the Initial Study/Environmental Assessment.

Rachel Kleinfelter, Associate Environmental Planner. B.A., Environmental Studies, Mills College; 17 years of biology experience. Contribution: Biology surveys.

Shawn Ogletree, Associate Environmental Planner. B.S., Environmental Conservation of Natural Resources, Texas Tech University; B.S., Wildlife/Fisheries Management, Texas Tech University; MPH, California State University, Fresno; 10 years of environmental health, environmental technical studies experience; 10 years of biology experience. Contribution: Hazardous Waste Specialist

Scott Smith, Senior Environmental Planner. B.A., Economics, California State University, Fresno; 13 years of environmental planning experience. Contribution: Senior reviewer of the Initial Study/Environmental Assessment.

Richard C. Stewart, Engineering Geologist, P.G. B.S., Geology, California State University, Fresno; more than 20 years of hazardous waste and water quality experience; 6 years of paleontology/geology experience. Contribution: Paleontology Study.

Kriti Uppal, Environmental Planner (Biology). M.A., English (H.P University, India); B.S., Environmental Science (Delhi University, India); Associate degree in Natural Sciences (Sacramento City College); 4 years of experience in Natural Sciences. Contribution: Natural Environment Study.

Appendix A California Environmental Quality Act Checklist

Supporting documentation of all California Environmental Quality Act checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment. Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures under the appropriate topic headings in Chapter 2.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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I. AESTHETICS: Would the project:

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

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

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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V. CULTURAL RESOURCES: Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

VI. GEOLOGY AND SOILS: Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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? | An assessment of the greenhouse gas emissions and climate change is included in the body of |
|---|---|

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

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. These measures are outlined in the body of the environmental document.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IX. HYDROLOGY AND WATER QUALITY: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XI. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XIII. POPULATION AND HOUSING: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XIV. PUBLIC SERVICES:

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

- | | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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XV. RECREATION:

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

XVI. TRANSPORTATION/TRAFFIC: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix B Section 4(f)

Section 4(f) De Minimis Evaluation Requirement

In 2005, SAFETEA-LU Section 6009(a) amended existing legislation, allowing the “use” of protected Section 4(f) lands or resources by the U.S. Department of Transportation (DOT), but only if the use is “de minimis”, or minimal in nature. Section 4(f) protects significant publicly owned parks, recreation areas, and wildlife and waterfowl refuges, as well as significant historic sites, regardless of whether those historic sites or properties are publicly or privately owned. Prior to 2005, Section 4(f) legislation did not allow the “use” of protected land and/or resources by the U.S. DOT unless it could be shown that there was no feasible and prudent alternative. Regarding protected historic sites, a finding of “de minimis” can be made by the agency only if (either) there will be no historic properties affected by the transportation project, or if consultation completed under Section 106 of the National Historic Preservation Act for the project resulted in a finding of no adverse effect. As the NEPA-delegated lead federal agency, Caltrans must evaluate impacts that a proposed undertaking will cause to Section 4(f) resources.

De minimis impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges, as well as historic sites, are defined as those that do not adversely affect the activities, features, and attributes of the 4(f) resource. The official(s) with jurisdiction over the property must provide written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f), and the public must be afforded the opportunity to review and comment on the effects of the project on the identified 4(f) resource(s). When identifying de minimis impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges, or historic sites, it is important to distinguish the activities, features, and attributes of a Section 4(f) resource that are important to protect from those that can be “used” without resulting in impairing or diminishing the resource involved.

When Caltrans determines that a transportation use of a Section 4(f) property, after consideration of any impact avoidance, minimization, and compensation or enhancement measures, results in a de minimis impact on that property, no further Section 4(f) evaluation is required.

Section 6(F)

On August 1, 2014, the Office of Grants and Local Services with the California Department of Parks and Recreation sent a letter (See Appendix F) indicating that, while the project is within land protected under the Land and Water Conservation Fund (Section 6(f)), the use of the specified park property for this project was not incompatible with recreation uses nor would it change or restrict access to the park so the project would not constitute a conversion of Section 6(f) property.

B.1 Proposed Action

The purpose of this project is to bring Caltrans into compliance with the State's Stormwater Management Program and the National Pollutant Discharge Elimination System permit on State Route 4 two miles west of Arnold in Calaveras County in Calaveras Big Trees State Park.

This narrow two-lane highway with minimal shoulders goes through a densely wooded area where little sunlight reaches the roadway. Because of the shady conditions, significant effort is required to control icy pavement and for snow removal crews to keep the highway clear for the traveling public. The current ice control method used during winter months is to spread sand on the icy roadway surface to improve vehicle traction. Because there is not enough room to plow and store the snow just off the pavement, snow removal crews blow the snow-mixed-with-traction-sand from the pavement surface, displacing the mixture onto the slope banks paralleling the creek. When it rains or when the snow melts, the sand drops into Big Tree Creek, which results in a violation of the National Pollutant Discharge Elimination System permit.

Caltrans has developed four alternatives; however, two were dropped due to them not being feasible. The following are the proposed alternatives:

Alternative 1

Alternative 1 would do the following:

- Widen State Route 4 approximately 18 feet along the eastbound side and 11 feet along the westbound side of the existing highway.

- Construct about 800 linear feet of retaining walls and 2,400 linear feet of concrete barrier along the eastbound side of the highway.
- Relocate overhead power lines and underground telephone lines.
- Extend the Caltrans right-of-way into Calaveras Big Trees State Park.

Cost of Alternative 1 is estimated to be \$4,790,000 for construction and \$984,100 for right-of-way, including mitigation and utility relocations.

Alternative 2

Alternative 2 would do the following:

- Widen State Route 4 within the State right-of-way.
- Construct 1,665 linear feet of retaining walls on the eastbound side of the highway and 2,400 linear feet of concrete barrier on the eastbound side of the highway.
- Construct 2,060 linear feet of retaining walls on the westbound side of the highway. The walls would be between 6 and 16 feet high along State Route 4.

Cost of Alternative 2 is estimated to be \$9,731,000 for construction and \$539,663 for right-of-way, including environmental permits and review and utility relocation.

No-Build Alternative

Under the No-Build Alternative, State Route 4 would remain as it is and Caltrans would continue to be in violation of the National Pollutant Discharge Elimination System permit.

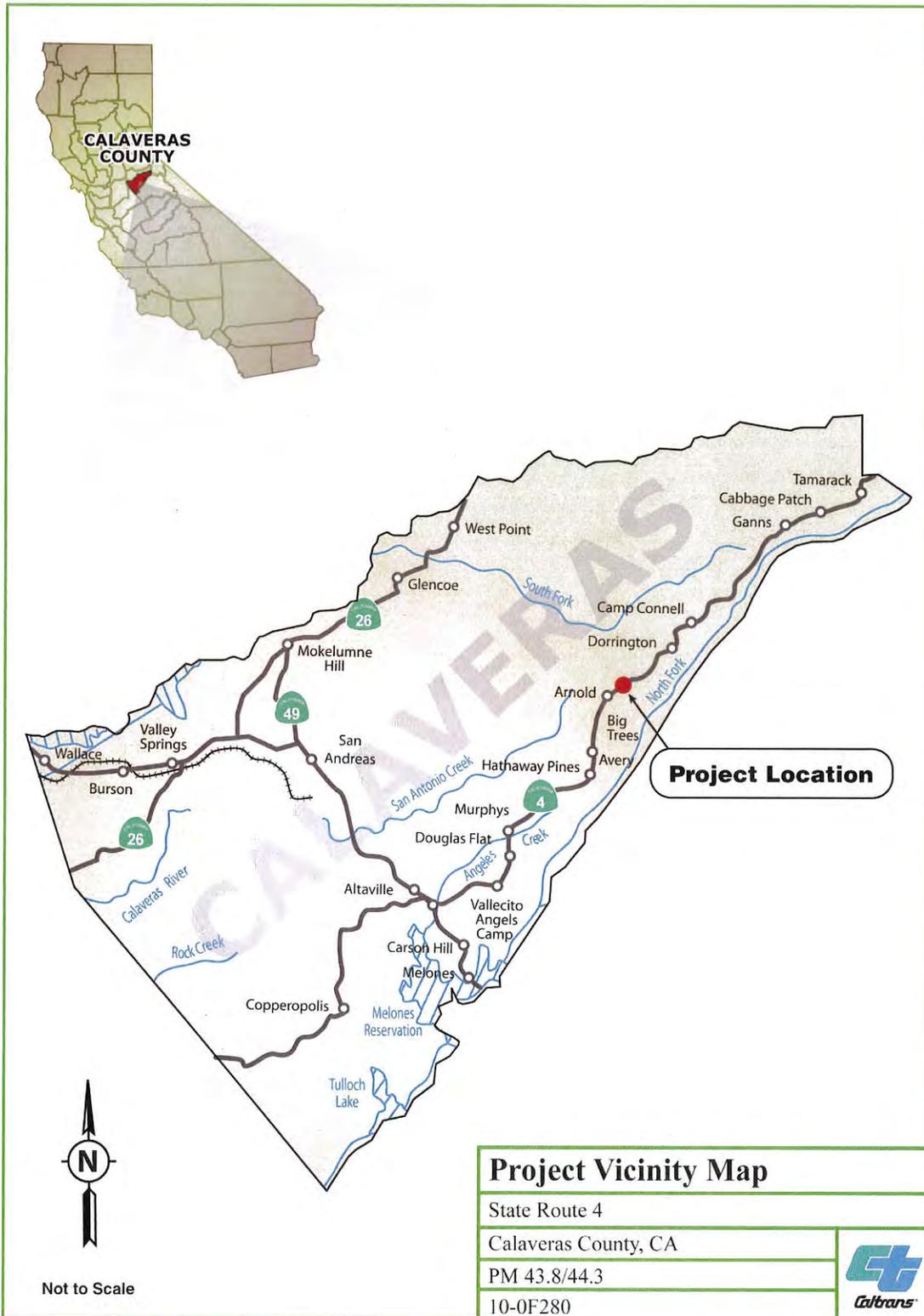


Figure B-1 Project Vicinity Map

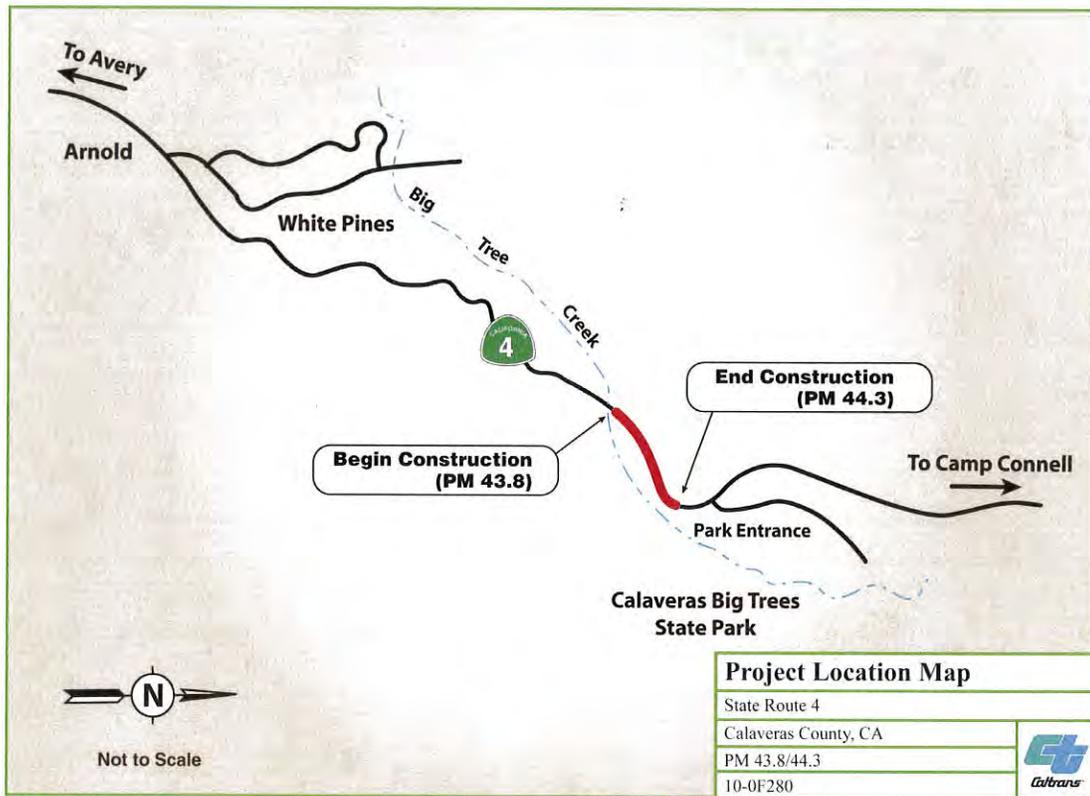


Figure B-2 Project Location Map

B.2 List and Description of 4(f) Properties

Calaveras Big Trees State Park, established in 1931, is a California State Park administered by the California Department of Parks and Recreation in Calaveras County. The park consists of 6,500 acres of mixed conifer forest and is known for its groves of giant Sequoia. The park is accessed via State Route 4, by car and sometimes bicycle. See Figure B-3.

The project is about 0.2 mile west of the main entrance of the park, near North Grove campground. The North Grove campground has 74 campsites and a visitor center, and is the trailhead for the North Grove Trail. The trail is 1.5 miles and well marked; some of its key features are the Big Stump and several large Sequoia.

Because this project would affect a public-owned park, it is subject to Section 4(f).

State Route 4 is a designated scenic highway, but is not a Section 4(f) resource, so impacts to the highway are not addressed here. For additional information, see Visual, Section 2.1.5.

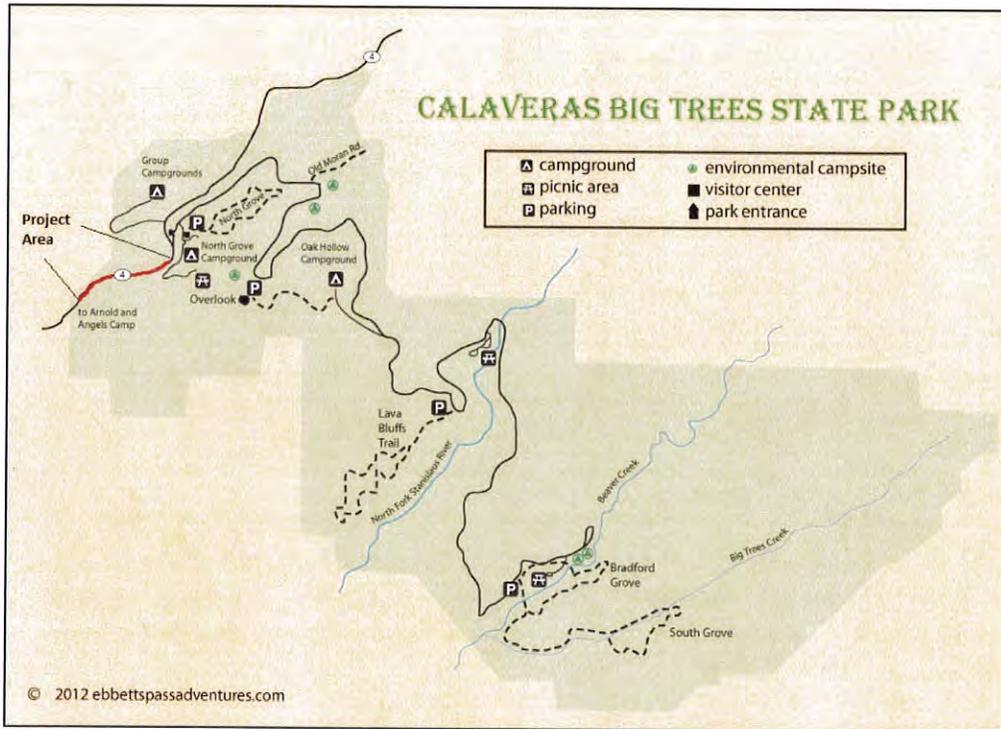


Figure B-3 Calaveras Big Trees State Park Map

B.3 Impact to Section 4(f) Resources by Alternative

Direct Impacts to Calaveras Big Trees State Park

Alternative 1 would expand Caltrans' easement by 2.9 acres, converting parkland into state highway. Alternative 2 would not acquire any parkland; it would construct a large retaining wall, allowing construction to occur without pushing into park property.

These 4(f) properties would be incorporated into the project, which would remove a small percentage (0.04%) of the parkland within Calaveras Big Trees State Park. No recreational facilities would be directly affected.

Visual

The existing visual quality of State Route 4 in the project area is moderately high. This view quality is due primarily to the abundance of natural vegetation, the defined landforms and land cover, and the minimal visibility of built elements.

Viewers through this area generally have high expectations for scenic quality, and the scenic designations bestowed by the State of California and the Stanislaus National

Forest (which manages most of the Ebbetts Pass Scenic Byway scenic resources), further heighten viewer sensitivity along this route. Roadside views along State Route 4 within the project area are generally confined to the foreground environment with some middle-ground views. Background views are restricted by existing topography and dense forest vegetation.

Changes to visual resources are expected within the proposed project limits. These changes are due to the introduction of built elements (retaining walls, increased roadway pavement, etc.) and the decrease to natural vegetation and the alteration of the existing landform. Park viewers would experience the greatest visual change with the installation of the retaining walls. The change in visual character for highway travelers would be most evident in the extensive slope cuts necessary to provide snow storage and the removal of mature trees and understory associated with the grading work. This construction activity in particular is expected to have the greatest visual impact. The result would be a more spatially open, engineered character along with the scarred landscape, in contrast to the typical regional landscape.

Considerable post-construction visual impacts would result from the project. Impacts associated with Alternative 1 would diminish as natural weathering occurs over time at the project site and after implemented mitigation measures become established in about three years.

Visual impacts associated with Alternative 2 would be greater due to the size and character of the proposed retaining wall. It would be a much more intrusive impact due to it not blending into the existing landscape. The wall's impacts would diminish much less over time compared to alternative 1.

Vegetation

Alternative one would affect the montane hardwood conifer community by removing 126 mature trees. This alternative would also permanently remove approximately 3 acres of riparian habitat.

Other Resources Evaluated Relative to Requirements of Section 4(f)

CA-CAL-227/H is not a Section 4(f) resource, as it is the pre-historic component is eligible under Criterion D (value for data). The pump house is eligible under criteria C (architecture) but will not be affected by project. The park in which the site sits is a Section 4(f) property.

B.5 Measures to Minimize Harm

Vegetation

Riparian

Caltrans would obtain a Streambed Alteration Agreement (1602) from the California Department of Fish and Wildlife. If Alternative 1 is selected, this would address riparian impacts as well as waters of the United States impacts. The permit would be obtained before beginning construction. Proposed mitigation for riparian habitat would replace permanently affected habitat by a ratio of 3 to 1.. This mitigation can be done either through payment of fees to a riparian mitigation fund or preservation or enhancement of offsite habitat (if available), or by enhancing riparian habitat within Calaveras Big Trees State Park.

The following avoidance and minimization measures would be implemented before and during construction:

- Limit removal of riparian vegetation to the minimum amount necessary to allow for efficient project construction.
- Minimize the amount of riparian vegetation removed by installing environmentally sensitive area fencing at the outer edge of the work area on the south side of State Route 4 before any ground disturbance or other construction-related activities. The fencing would be clearly delineated on the final contract plans. Any encroachment beyond the fencing would be prohibited. The project's special provision package would provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.

Montane Hardwood Conifer

The following avoidance and minimization measures would be implemented before and during construction:

- Limit removal of conifer habitat to the minimum necessary to allow for efficient project construction.
- Install high-visibility fencing outside of the drip line of the vegetation adjacent to the work areas within this habitat to make clear the environmentally sensitive area (ESA). Any encroachment beyond the environmentally sensitive area

fencing during construction would be prohibited. The environmentally sensitive area fencing would be clearly delineated on the final contract plans. The project's special provision package would provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.

Visual

To maintain these elements of visual quality and decrease the amount of negative visual impact caused by the project, the following design, construction, and maintenance actions are recommended. With the implementation of the stated minimization and avoidance methods, the visual impacts of this project can be reduced and would not result in significant changes in overall visual quality.

1. Use contour grading techniques to simulate the natural undulating slope forms found within the regional landscape to reduce an engineered appearance. Slope rounding should be implemented in all cases.
2. Avoid extreme topographic modification where possible.
3. Overall, finish slope grading with a rough appearance to create a natural aged look (see Figure B-4).
4. Where possible, retain existing (naturally occurring) rock outcroppings. When safe, allow isolated boulders and partially excavated rock to remain and protrude from the slope face.
5. If possible, stockpile excavated boulders and place them randomly back into the landscape.
6. Treat rock outcroppings that are exposed during construction with stain treatment to give a weathered appearance.
7. Where possible, flatten slopes in locations where trees do not exist. In no case should excavation be performed in proximity to a tree where the end result leaves exposed tree roots. If tree roots are exposed, the tree should be completely removed.
8. Revegetate all disturbed soil areas after recontouring landform.
9. Replace removed trees and understory where possible.

10. Replant with native species as much as possible. The Caltrans District Biologist and Landscape Architect would work with the Big Trees State Park biologist to determine appropriate revegetation species.
11. Undulate or feather the perimeter of tree groupings to increase the natural appearance.
12. Vary plant spacing for a more natural appearance.
13. Where possible to implement, save felled trees and displaced boulders and place them at random locations on disturbed areas to create an aged, natural appearance, as determined by the Caltrans Landscape Architecture Department.
14. Collect, stockpile and reapply duff to the excavated slopes to reduce the newly constructed look and to promote natural revegetation.
15. Apply erosion control to all disturbed soil areas.
16. Caltrans Landscape Architects in consultation with Caltrans District Biologists, Big Trees State Park and U.S. Forest Service plant resource specialists will determine the erosion-control seed species, origin and application strategy.
17. Where possible, construct proposed structural elements using natural or textured natural-appearing materials (such as sculpted boulders, rocks, retaining walls, manufactured stone veneers and/or wood textured products) to best match the surrounding visual character.
18. Contour grading at the base of retaining walls should be naturalistic and designed with fill material to reduce the overall height and scale of the wall and to provide a sufficient planting bed for plant reestablishment along Big Tree Creek.
19. Natural colors of brown, beige or forest green should be considered for proposed built elements.



Figure B-4 Rough-finish Grading

Direct Impacts to Park

Caltrans would address the direct impacts to park property by transferring 1.75 million dollars to Calaveras Big Trees State Park to fund the relocation of five campsites in North Grove Campground. The newly created campsites will be away from State Route 4, and include expanded utilities, new trails and upgrades to current Americans with Disabilities Act standards.

B.6 Coordination

Caltrans has coordinated with Calaveras Big Trees State Park staff concerning the project and its Section 4(f) impacts. Park staff had concerns about the need for the project and requested that Caltrans conduct a study to determine that there was an environmental impact from the sand being deposited in Big Tree Creek. Caltrans staff met with park staff and the Regional Water Quality Control Board and discussed how the study would not change the violation and could not be used to justify a violation of the stormwater permit.

Park staff also sent a request citing issues they were concerned with: cultural resources, noise impacts to the campground, biological resources, and the need to update the Calaveras Big Trees State Park General Plan.

B.6 Least Harm Analysis

Alternative 2 would avoid expansion of Caltrans' easement into Calaveras Big Trees State Park. However, it would also double the construction cost of the project and construct a large, visible wall along a scenic highway. Alternative 2 is also opposed by the staff at Calaveras Big Trees State Park.

The No-Build Alternative would leave Caltrans in violation of its National Discharge Permit and would put Caltrans at risk of getting a violation from the U.S. Army Corps of Engineers.

Alternative 1 would expand Caltrans' easement into Calaveras Big Trees State Park. It would be less costly and have fewer visual impacts than Alternative 2.

B.7 Coordination

February 8, 2010—Caltrans spoke with Ms. Patricia Raggio (Environmental Scientist) concerning biological resources and surveys within the Calaveras Big Trees State Park. She indicated that, while some California red-legged frog sightings were recorded in the 1950s, identification was questionable. No California red-legged frogs have been identified within Big Tree Creek since, and the species was deemed completely gone from the park. Park personal have conducted surveys for the Pacific fisher and it, too, is thought to be completely gone from the park.

April 4, 2011—A meeting was held between Caltrans and the Calaveras Big Trees State Park staff to discuss project issues and concerns, including impacts to the campground, impacts to cultural resources, and the concern that the entire park is a Section 6(f) property.

June 1, 2011—Caltrans met with representatives of Calaveras Big Trees State Park. At that meeting, park staff requested documentation of the scientific quantitative data showing the degradation of the aquatic habitat from sand and salt.

June 14, 2011—Caltrans sent a response to comments the park staff made at the June 1, 2011 meeting. In the letter, Caltrans explained how the National Pollutant Discharge Elimination System permit was violated and noted that the regional water quality control board intends to enforce the permit.

July 7, 2011—Caltrans received a letter from Liz Steller stating that the park did not feel that Caltrans had made the case for the need of the project and that the park would no longer proceed on permits or reviews. The park felt that Caltrans should study the impacts of the sand that's getting into the creek.

March 21, 2012— A project team meeting was held with Calaveras Big Trees State Park staff. Caltrans provided maps and a project description. Park staff expressed concerns about project impacts to the campgrounds, particularly noise impacts. Park staff members were also concerned about visual impacts to the Ebbetts Pass corridor and to cultural and biological resources.

August 2, 2012—Caltrans sent layouts of the project from the public meeting and identified times that would be best to conduct noise studies.

April 12, 2013— Caltrans received a table of information from Calaveras Big Trees State Park about issues with the project. The table outlined some of the park's main concerns: loss of trees and habitat, impact to wildlife, loss of land/soil and rock formation, cultural resources, impact to camping experience and park ambience, noise impacts, loss of campsites, and visual impacts.

April 12, 2013—Caltrans received a copy of the letter sent to Liz Steller from the State Parks Land and Conservation Fund Manager concerning Section 6(f). The letter indicated that the entire park—not just the area originally purchased—was under Section 6(f) protection.

April 24, 2013—Caltrans sent an email asking Calaveras Big Trees State Park when noise is an issue at North Grove Campground.

April 27, 2013— Caltrans received an email from Calaveras Big Trees State Park about traffic and noise at North Grove campground. The email indicated times when park staff felt traffic and noise impacts were most prevalent.

July 11, 2013—Caltrans received a letter outlining the impacts to address in the environmental document. The concerns included: impacts to park revenue, park facilities, and campgrounds; concerns over the impact to the septic field; visual impacts; the need to change the general plan; cultural and biology impacts.

July 24, 2013—Caltrans sent an email to Liz Steller (Park Supervisor) about the location of a septic leach field, noting that the project would not affect it.

April 28, 2014—Caltrans and Calaveras Big Trees State Park meet to discuss the project. Caltrans indicated an interest in the park agreeing to a De Minimis determination. The park staff indicated their interest in the following issues: the relocation of the campsites along State Route 4 and improving pedestrian access across State Route 4. Caltrans indicated it would look at traffic calming solutions that would not affect the project limits. Also discussed was locations for the Section 6(f) replacement property. The park staff indicated they would send a letter indicating their estimates for the campground relocation.

May 15, 2014—Calaveras Big Trees State Park sent a letter to Caltrans. The letter outlined mitigation they were requesting: habitat and tree replacement, invasive species control, relocation of 20 campgrounds, curate of cultural resources, left turn pocket for road to campground and pedestrian undercrossing from the campground to staff parking.

June 23, 2014—Calaveras Big Trees State Park staff meet with Caltrans district director their concerns about dropping Alternative one.

July 10, 2014—Calaveras Big Trees State Park sent letter indicating that Alternative 2 would be unacceptable to the park due to visual and noise impacts. They also countered our proposal with the following outstanding issues: a Section 4(f) De Minimis would be acceptable if Caltrans and Calaveras Big Trees State Park can agree on appropriate mitigation. The relocation of 11 campsites is now being proposed, the park would like to use the state parks execution of transfer of jurisdiction, and requested restoration for disturbed habitat and documentation of cultural resources. The letter also indicated that the park is in contact with National Parks Service with regard to the Land and Water Conservation Fund and its restrictions. Park staff is trying to find a way to exempt the project from the restrictions.

August 1st, 2014— The Office of Grants and Local Services with the California Department of Parks and Recreation sent a letter (see Appendix F) indicated that while the project is within land protected under the Land and Water Conservation Fund (Section 6(f)), the use of that parcel was not incompatible with recreation uses nor change or restrict access to the park the project would not constitute a conversion of Section 6(f) property.

August 4, 2014—Calaveras Big Trees State Park sent a letter outlining the following issues: the campground would require a higher document than a negative declaration, additional construction would be necessary to comply with the American with Disabilities Act, utilities would need to be upgraded, the new sites would need to have a trail created to connect them to existing pedestrian trails, and they reduced the number of relocations from 11 to 5 campsites.

Appendix C Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY 711
www.dot.ca.gov



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March 2013

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

A handwritten signature in black ink, appearing to read "Malcolm Dougherty".

MALCOLM DOUGHERTY
Director

"Caltrans improves mobility across California"

Appendix D Minimization and/or Mitigation Summary

Parks and Recreation

Alternative 1 would convert 2.9 acres of park property. The acquired property would become part of the highway right-of-way.

Caltrans would address the indirect impacts to park property by transferring 1.75 million dollars to Calaveras Big Trees State Park to fund the relocation of five campsites in North Grove Campground. The newly created campsites will be away from State Route 4

A transportation management plan would be prepared to minimize delay to travelers during construction.

Visual

To maintain the elements of visual quality and decrease the amount of negative visual impact caused by the project, the following design, construction and maintenance actions are recommended. With implementation of these mitigation methods, the visual impacts of this project can be reduced and would not result in significant changes in overall visual quality.

1. Use contour grading to simulate the natural undulating slope forms found within the regional landscape to reduce an engineered appearance. Slope rounding should be implemented in all cases.
2. Where possible, avoid extreme modification of topographic features.
3. Overall, finish slope grading with a rough appearance to create a naturally aged look (see Figure 2-17).
4. Where possible, retain existing (naturally occurring) rock outcroppings. When safe, allow isolated boulders and partially excavated rock to remain and protrude from the slope face.
5. If possible, stockpile excavated boulders, and place them randomly back into the landscape.

6. Treat rock outcroppings that are exposed during construction with stain treatment to give a weathered appearance.
7. Where possible, flatten slopes in locations where trees do not exist. In no case should excavation be performed in proximity to a tree where the end result leaves exposed tree roots. If tree roots are exposed, the tree should be completely removed.
8. As much as possible, excavate slopes to minimize tree removal.
9. Revegetate all disturbed soil areas after recontouring the landform.
10. Replace removed trees and understory where possible.
11. Replant with native species as much as possible. The Caltrans District Biologist and Landscape Architect shall work with the Calaveras Big Trees State Park biologist to determine appropriate revegetation species.
12. Undulate or feather the perimeter of tree groupings to increase the natural appearance.
13. Vary plant spacing for a more natural appearance.
14. Where possible to implement, save appropriate number of felled trees and boulders and naturally place them at random locations on disturbed areas to create an aged appearance, as determined by the Caltrans Landscape Architecture Department.
15. Collect, stockpile, and reapply duff to the excavated slopes to reduce the newly constructed look and to promote natural revegetation.
16. Apply erosion control to all disturbed soil areas.
17. Erosion control seed species, origin and application strategy shall be determined by Caltrans Landscape Architects in consultation with Caltrans District Biologists, and Calaveras Big Trees State Park.
18. Where possible, construct proposed structural elements using natural or textured natural-appearing materials (such as sculpted boulders, rocks, retaining walls, manufactured stone veneers and/or wood textured products) to best match the surrounding visual character.

19. Contour grading at the base of retaining walls should be naturalistic and designed with fill material to reduce the overall height and scale of the wall and provide a sufficient planting bed for plant reestablishment along Big Tree Creek.
20. Natural colors of brown, beige or forest green should be considered for proposed built elements.

Cultural Resources

Caltrans proposes to resolve adverse effects under the terms of a Memorandum of Agreement, prepared pursuant to Stipulation XI of the Programmatic Agreement, which would be implemented with an archaeological data recovery plan. Caltrans, as designated by the Federal Highway Administration and the State Office of Historic Preservation, would execute a Memorandum of Agreement that would determine a treatment plan to mitigate potential impacts to the affected property. The treatment plan may include data recovery, monitoring and implementation. The treatment plan would be addressed in the final environmental document.

Contributing portions of the site that would not be directly affected by construction activities would be designated environmentally sensitive areas. A fence would be put around the environmentally sensitive areas, and the areas would be monitored by professionally qualified staff during project-related ground-disturbing activities.

It is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy to stop work in the area until a qualified archaeologist can evaluate the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to California Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner would notify the Native American Heritage Commission, which would then notify the Most Likely Descendent. At this time, the person who discovered remains would contact the Resident Engineer so that he or she could work with the Most Likely Descendent on the respectful treatment and

disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

Water Quality

Best management practices would be required because a soil disturbance area greater than 1 acre is anticipated. The following would be required:

- A notice of intention would be submitted to the appropriate regional water quality control board at least 30 days prior to start of construction.
- A stormwater pollution prevention plan would be prepared and implemented during construction to the satisfaction of Resident Engineer. It would be approved by Caltrans prior to start of construction.
- A notice of termination shall be submitted to the regional water quality control board upon completion of construction and site stabilization. A project will be considered complete when the criteria for final stabilization defined in the construction general board permit are met.

Biology – Habitats

Riparian

Caltrans would obtain a Streambed Alteration (1602) Agreement from the California Department of Fish and Wildlife. If Alternative 1 is selected, this would address riparian impacts as well as waters of the United States impacts. The Streambed Alteration Agreement will be obtained before beginning construction. Proposed mitigation for riparian habitat would replace permanently affected habitat by a ratio of 3 to 1, approximately 9 acres. This mitigation can be done either through payment of fees to a riparian mitigation fund, preservation or enhancement of offsite habitat (if available), or by enhancing riparian habitat within Calaveras Big Trees State Park.

The following avoidance and minimization measures would be implemented before and during construction:

- Limit removal of riparian vegetation to the minimum amount necessary to allow for efficient project construction.
- Minimize the amount of riparian vegetation removed by installing environmentally sensitive area fencing at the outer edge of the work area on the south side of State Route 4 before any ground disturbance or other construction-related activities. The fencing will be clearly delineated on the final contract

plans. Any encroachment beyond the fencing would be prohibited. The project's special provision package will provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.

Montane Hardwood Conifer

The following avoidance and minimization measures would be implemented before and during construction:

- Limit removal of conifer habitat to the minimum necessary to allow for efficient project construction.
- Install high-visibility fencing outside of the drip line of the vegetation adjacent to the work areas within this habitat to make clear the environmentally sensitive area (ESA). Any encroachment beyond the environmentally sensitive area fencing during construction would be prohibited. The environmentally sensitive area fencing would be clearly delineated on the final contract plans. The project's special provision package will provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.

Biology – Animal Species

California Spotted Owl

The following avoidance and minimization measures would be implemented:

- Conduct a second protocol-level survey within the spring and summer prior to construction. If active nest sites are observed, data collected from this survey would aid in minimizing and avoiding impacts to nesting owls during project construction, which will be done in coordination with California Department of Fish and Wildlife.
- Retain a qualified biologist prior to construction and any ground disturbance activities to conduct an education program that includes a description of the California spotted owl and general protection measures to be implemented to protect the species.
- Assign a qualified biologist to conduct a pre-construction survey at least 14 days prior to any ground disturbance or other construction-related activities. If

identified, the Caltrans biologist in coordination with the California Department of Fish and Wildlife, will determine how to proceed.

- Establish a no-disturbance buffer of 500 feet around active nests identified during pre-construction surveys to avoid disturbance or destruction of the nest until after the breeding season, or until a biological monitor determines that the young have fledged.
- Provide a qualified biologist to monitor the project during construction to ensure that the California spotted owl is not affected by the proposed project.

Northern Goshawk

The following avoidance and minimization measures would be implemented:

- Conduct a second protocol-level survey within the spring and summer prior to construction. If active nest sites are observed, data collected from this survey would aid in minimizing and avoiding impacts to nesting northern goshawk during project construction.
- Retain a qualified biologist prior to construction and any ground disturbance activities to conduct an education program that includes a description of the northern goshawk and general protection measures to be implemented to protect the species.
- Assign a qualified biologist to conduct a pre-construction survey at least 14 days prior to any ground disturbance or other construction-related activities.
- Establish a no-disturbance buffer of 500 feet around active nests identified during pre-construction surveys to avoid disturbance or destruction of the nest until after the breeding season, or until a biological monitor determines that the young have fledged.
- Provide a qualified biologist to monitor the project during construction to ensure that the northern goshawk is not affected by the proposed project.

Foothill Yellow-legged Frog

The following avoidance and minimization measures would be implemented prior to and during construction:

- Implement erosion control and slope stabilization best management practices, as defined in the project's stormwater pollution prevention plan.
- Minimize the amount of vegetation removed.
- Assign a qualified biologist to conduct an education program before construction and any ground disturbance activities. This education/training program shall include a description of the foothill yellow-legged frog and general protection measures to be implemented to protect the species.
- Provide a qualified biologist to conduct a pre-construction survey at least 14 days prior to any ground disturbance or other construction-related activities.
- Install environmentally sensitive area fencing at the outer edge of the work area on the south side of State Route 4 prior to any ground disturbance or other construction-related activities to protect foothill yellow-legged frog habitat. Any encroachment beyond the fencing during construction would be prohibited. The fencing would be clearly delineated on the final contract plans. The project's special provision package will provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.
- Install silt fencing at the outer edge of the work area on the south side of State Route 4 to prevent any amphibians from entering the work area. The fence shall be installed prior to any ground disturbance or other construction-related activities, and shall remain in place until construction is completed. Any encroachment beyond the silt fencing during construction would be prohibited. The silt fencing would be clearly delineated onto the final contract plans.
- Assign a qualified biologist to monitor the project during construction and be responsible for ensuring that the environmentally sensitive area fencing and silt fencing are not compromised, and to otherwise ensure that the foothill yellow-legged frog is not affected by the project.

Western Red Bat

The following avoidance and minimization measures would be implemented prior to and during construction:

- Minimize the amount of vegetation removed.
- Assign a qualified biologist to conduct an education program before construction and any ground disturbance activities. This education/training program shall include a description of the western red bat and general protection measures to be implemented to protect the bat.
- Assign a qualified biologist to conduct a pre-construction survey at least 14 days prior to any ground disturbance or other construction-related activities.
- Install environmentally sensitive area fencing at the outer edge of the work area on the south side of State Route 4 prior to any ground disturbance or other construction-related activities to protect western red bat habitat. Any encroachment beyond the fencing during construction would be prohibited. The fencing would be clearly delineated on the final contract plans. The project's special provision package will provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbance activities within sensitive areas.
- Provide a qualified biologist to monitor the project during construction to ensure that the western red bat is not affected by the proposed project.

Appendix E SHPO Concurrence

STATE OF CALIFORNIA – THE RESOURCES AGENCY

EDMUND G. BROWN, JR., Governor

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov



January 23, 2014

Reply in Reference To: FHWA_2013_1210_002

Jeanne Day Binning, Chief
Central California Cultural Resources Branch
Caltrans District 6, 10
P.O. Box 2048
Stockton, CA 95201

RE: Determination of Eligibility for the Big Trees Creek Storm Water Compliance Project,
Calaveras County, California; State Route 4 (SR4), PM 43.8/44.3.

Dear Ms. Binning:

Thank you for your letter dated December 6, 2013, requesting consultation regarding the above noted undertaking in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA). You are requesting my concurrence on the Area of Potential Effect (APE), identification of historic properties located within the APE, evaluation efforts and determination of eligibility to the National Register of Historic Places (National Register) for CA-CAL-277/H; per Stipulation VIII.C.5 of the PA.

Caltrans proposes to bring SR4 into compliance with the Storm Water Management Program and the National Pollution Discharge Elimination System Program to mitigate for snow/water discharge from the roadway into Big Trees Creek. Currently there are two proposed build alternatives that would include roadway widening, grading, cutting, and filling of existing landforms to facilitate road, shoulder, retaining wall and gutter construction. Alternative One would widen both sides of the roadway, construct 800 feet of retaining walls and 2,400 feet of concrete barrier on the south side of SR4, modify existing culverts and add new drainage facilities. Alternative Two would widen SR4 within existing Caltrans right-of-way (ROW) and include 2060 feet of retaining wall on the north side of SR4, 1,665 feet of retaining wall and 2,400 feet of concrete barrier on the south side of the highway; existing culverts will be modified and new drainage facilities added. The APE for this undertaking is limited to an area extending 20 meters to the north and 10 meters south of the existing SR4 roadbed between Post Mile (PM) 43.8 and 44.3. The APE expands to include the entirety of site CA-CAL-277/H. The maximum vertical APE is 12 feet below original ground surface at the cut zone on the north side of the highway. Retaining walls will require a minimum disturbance of 4 feet below ground surface.

In addition to your December 6, 2013 letter received December 10, 2013, you have submitted the following document as evidence of your efforts to identify and evaluate historic properties in the project APE:

- *Historical Property Report for the Big Trees Creek Storm Water Compliance Project, Calaveras Big Trees State Park, Calaveras County, California* (Benson, December 6, 2013). Containing:
 1. *Historical Resources Evaluation Report for the Big Trees State Park Wall for Sediment Control, Calaveras County, California* (Brady, September 2013).
 2. *Preliminary National Register Eligibility Determination Report for CA-CAL-277/H, Along State Route 4 in Calaveras Big Trees State Park, (Phase II Letter Report), Calaveras Big Trees State Park, Calaveras County, California* (Wohlgemuth, 2013).
 3. *Archaeological Evaluation Proposal for Sites CA-CAL-2104 and CA-CAL-2109; Calaveras Big Trees Wall Project, Calaveras Big Trees State Park, Calaveras County, California* (Wohlgemuth, June, 2011).
 4. *Extended Phase I Investigation of Two Locations for the Big Tree Storm Water Compliance Project, Calaveras Big Trees State Park, State Route 4, Calaveras County, California* (Benson, June, 2011).
 5. *Archaeological Survey Report for the Proposed Big Tree Creek Storm Water Compliance Project, Calaveras County, California* (Benson, November, 2009).

Archival research included the Central California Information Center on March 21, 2001 and updated on May 6, 2011. Two previously recorded cultural resources were determined to lie within the APE; CA-CAL-277 (village with bedrock mortars) and CA-CAL-280 (bedrock mortar). Subsurface investigations (Extended Phase I) during 2010 to determine vertical and horizontal site boundaries resulted in CA-CAL-280 being re-recorded as two sites; CA-CAL-2104 and CA-CAL-2109. Additional subsurface testing to determine eligibility to the National Register (Phase II) discovered three loci within CA-CAL-280 and ultimately that all loci were part of one archaeological site CA-CAL-277/H; which included the addition of a historic era pump house and well.

Native American consultation included contact with the Native American Heritage Commission (NAHC) (March 2001 & March 2009) and Native American tribes and individuals likely to have knowledge of sites of religious or cultural significance to them in the project area (March 2001 to September 2013). No such properties were identified in the NAHC files. Consultation with Native American tribes and individuals has been ongoing, and has resulted in field monitoring for activities associated with CA-CAL-277/H and will continue. No new sites of religious or cultural significance have been identified through consultation efforts to date.

Caltrans has determined the historic component of CA-CAL-277/H is eligible to the National Register under Criteria A and C with a period of significance of 1935-1941. Pump House No. 1 was built in the Park Rustic style developed by the National Park Service. Although simple in design and function, the building imbues those character-defining features that reflect the Park Rustic type, the Depression era, and the CCC method of construction. The building was constructed by Company 529 during the only season that it worked at the Big Trees State Park. The building represents one of the earliest CCC masonry buildings within Big Trees State Park and is therefore eligible for the National Register.

Caltrans determined the prehistoric component of the site is eligible under Criterion D. The low density scatter between the three site loci was determined as a non-contributor to National Register eligibility. Excavations determined the site appears to have isolated single-component areas dating to the Recent Prehistoric, Late Archaic and possibly Middle Archaic Periods. Locus

23 January 2014
Page 3 of 3

FHWA_2013_1210_002

2 exhibits excellent stratigraphic integrity. Locus 1 has less stratigraphic distinction but provides obsidian debitage suitable for hydration testing and organic constituents for radiocarbon sampling. Locus 3, the bedrock mortar feature, was not evaluated as to its potential to contribute to the National Register eligibility of the site as it will not be impacted by the project.

Based on the documentation provided, I concur that the APE for both alternatives is sufficient; identification efforts are sufficient; site CA-CAL-277/H is eligible to the National Register under Criteria A and C for the historic portion of the site (Pump House No. 1) and under Criterion D for the prehistoric portion of the site.

Thank you for seeking my comments and considering historic properties as part of your project planning. I look forward to continuing consultation on determining the effects the project will have on historic properties and mitigation alternatives. If you have any questions or concerns, please contact Associate State Archaeologist, Kim Tanksley at (916) 445-7035 or by email at kim.tanksley@parks.ca.gov.

Sincerely,



Carol Roland-Nawi, PhD
State Historic Preservation Officer

Appendix F Calaveras Big Trees State Park Letter Re: Section 6(f) Determination



State of California • Natural Resources Agency

Edmund G. Brown Jr., Governor

DEPARTMENT OF PARKS AND RECREATION
P.O. Box 942896 • Sacramento, CA 94296-0001

Lisa Ann L. Mangat, Acting Director

August 1, 2014

Mr. Dennis Agar
Director, District 10
Department of Transportation
1976 East Charter Way / East Dr. Martin Luther King Jr. Blvd.
Stockton, CA 95205

Re: LWCF Project Number: 06-01256 -- Calaveras Big Trees State Park

Dear Mr. Agar,

The Office of Grants and Local Services (OGALS) has been delegated the authority to administer the Land and Water Conservation Fund (LWCF) regulations by the Department of the Interior. OGALS has received Caltrans' proposal for the transfer of jurisdiction of approximately 2.9 acres of property lying within the Land and Water Conservation Fund (LWCF) 6(f)(3) boundary line at Calaveras Big Trees State Park for the purpose of road shoulder work necessary to improve water quality in a nearby creek.

Section 6(f)(3) of the LWCF Act requires that no property acquired or developed with LWCF assistance shall be converted to other than public outdoor recreational uses without the approval of the Secretary of the Department of the Interior.

Since the transfer of jurisdiction proposal does not convert the land to a purpose incompatible with public outdoor recreation, does not widen the traffic lanes, and does not change or restrict access to the park, it is not considered a conversion, and is allowed on this 6(f)(3) protected property. If you have questions, please contact Cristelle Erickson, Project Officer at (916) 654-8686 or Cristelle.Erickson@parks.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Lee Butterfield".

Lee Butterfield
Manager
Office of Grants and Local Services

cc: Lisa Mangat, Acting Director
Aaron Robertson, Chief Deputy Director
Steve Lehman, Deputy Director
Jess Cooper, Northern Division Chief
Greg Martin, Acting Central Valley District Superintendent

List of Technical Studies (Bound Separately)

Air Noise and Water Report (July 2013)

Update Air Noise and Water Report (March 2013)

Noise Evaluation for Campsites (June 2013)

Update Noise Evaluation for Campsites (March 2013)

Natural Environment Study (November 2013)

Update Natural Environmental Study (March 2013)

Hydrology Report (July 2009)

Historic Property Survey Report (December 2013)

- Historic Resource Evaluation Report
- Historic Architectural Survey Report

Initial Site Assessment (December 2009)

Update Initial Site Assessment (March 2014)

Visual Impact Assessment (December 2013)

Paleontology Identification Report (June 2009)

Updated Paleontology Identification Report (March 2013)