

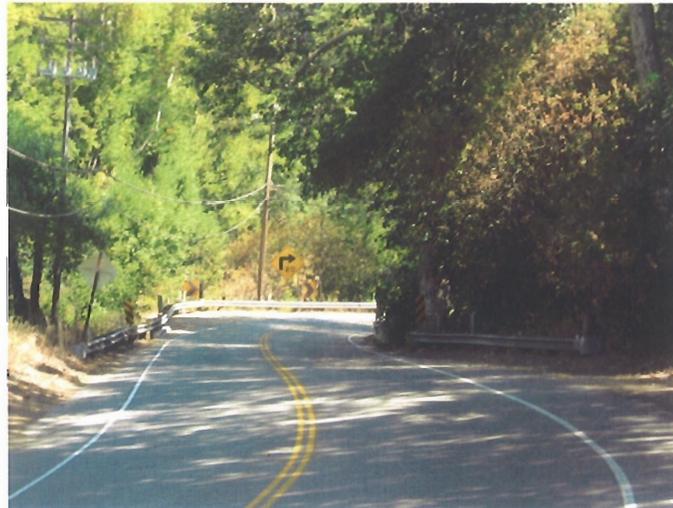
State Route 9 Safety Improvement Project

SANTA CLARA COUNTY, CALIFORNIA

DISTRICT 4 – SCL – 9 (PM 2.5/7.0)

EA 2A4300

Draft Environmental Impact Report / Environmental Assessment and Section 4(f) De Minimis Finding



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 U.S.C. 327.



December 2009

General Information about This Document

WHAT'S IN THIS DOCUMENT:

The California Department of Transportation (Department), as assigned by the Federal Highway Administration (FHWA), has prepared this Environmental Impact Report/Environmental Assessment (EIR/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Santa Clara County, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, the potential impacts from each of the alternatives, and the proposed avoidance, minimization, and/or compensation measures.

WHAT YOU SHOULD DO:

- Please read this Environmental Impact Report/Environmental Assessment. Additional copies of this document as well as the technical studies are available for review at 111 Grand Avenue, Oakland, CA 94612 and at the Saratoga Library, 13650 Saratoga Avenue, Saratoga, CA 95070-5099.
- Attend public meetings on January 7, 2010 from 6PM to 8PM at the City of Saratoga Recreation Department, 13777 Fruitvale Avenue, Saratoga, CA 95070.
- We welcome your comments. If you have any comments regarding the proposed project, please attend the public meeting and/or send your written comments to the Department by the deadline.
- Submit comments via postal mail to:

Department of Transportation
Attention: Sheryl M. Garcia, Associate Environmental Planner
Office of Environmental Analysis
111 Grand Avenue, Oakland, CA 94623

- Submit comments via email to: sheryl_m_garcia@dot.ca.gov.
- Submit comments by the deadline: January 29, 2010.

WHAT HAPPENS NEXT:

After comments are received from the public and reviewing agencies, the Department, as assigned by the Federal Highway Administration, 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, the Department could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made 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 Department of Transportation, Attn: Sheryl M. Garcia, Environmental Analysis, 111 Grand Avenue MS 8B, Oakland, CA 94623; (510) 286-5611 Voice, or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

SCH #2009052002
04-SCL-9-PM 2.5/7.0
2A4300

Safety improvement at three locations on State Route 9, from postmile 2.5 to postmile 7.0

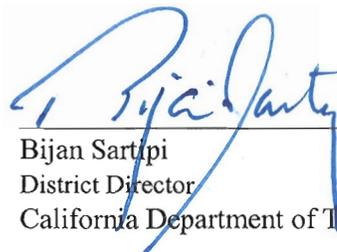
**DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL
ASSESSMENT and Section 4(f) DE Minimis Finding**

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

11-20-09

Date of Approval



Bijan Sartipi
District Director
California Department of Transportation

Summary

Overview of Project Area

State Route (SR) 9 is a two-lane undivided conventional highway that runs north/south in Santa Clara County and winds through the Santa Cruz Mountains connecting State Route 17 with the Saratoga Gap Open Space Preserve and Santa Cruz County (Figures 1.1 and 1.2). Within the project limits (PM 2.5 to PM 7.0), State Route 9 is designated as an official State Scenic highway and is generally bordered by hills on one side and valleys on the other side. The existing facility within the project limits consists of two approximately 11-foot lanes separated by a solid double-yellow strip and outside paved shoulders that vary from less than one foot to more than eight feet in width. At many locations, there are steep hills where the toe slope abuts the existing edge of the shoulder.

Purpose and Need

The purpose of this project is to improve traffic safety and the operation of State Route 9 at the following three locations:

- 1) PM 2.5/2.7;
- 2) PM 5.9/6.01; and
- 3) PM 6.7/7.0.

The existing capacity is measured by the average annual daily traffic (AADT). The AADT along the project segment of SR 9 is 4,050 vehicles (2.58% trucks). The AADT is expected to increase to a projected demand of 6,400 vehicles by the year 2025. The three spot locations have approximately ninety percent more accidents than similar facilities statewide.

Proposed Action

The proposed project includes an alternative to construct improvements at three spot locations and a no-build alternative. The improvements include: improving sight distance; upgrading the existing lanes and shoulders; increasing the super-elevation; installing metal beam guardrails; and placing warning signs. To accommodate these improvements, the existing slope would be cut back and soil nail retaining walls would be constructed.

Joint CEQA/NEPA Document

The proposed project is a joint project by the California Department of Transportation (Department or Caltrans) and the Federal Highway Administration (FHWA), and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The Department is the lead agency under CEQA. In addition, FHWA's responsibility for environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by the Department under its assumption of responsibility pursuant to 23 U.S.C. 327.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, it is quite often the case that a "lower level" document is prepared for NEPA. One of the

most commonly seen joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA). The project's visual impacts are significant and cannot be mitigated to less than significant thus the preparation of the EIR is necessary. As a whole, the project impacts are not significant and thus the preparation of the EA is warranted.

Following receipt of public comments on the Draft EIR/EA and circulation of the Final EIR/EA, the Department will be required to take actions regarding the environmental document. The Department will determine whether to certify that the EIR and issue Findings and a Statement of Overriding Considerations under CEQA and to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement (EIS) under NEPA.

Potential Environmental Impacts and Proposed Mitigation Measures

The Summary of Impacts Table (Table S-2 Impacts and Mitigation Issues) summarizes the impacts of the proposed project. The impacts include the following:

CULTURAL RESOURCES

Hakone Gardens was found eligible for the National Register. There will be a sliver take from the gardens, it will be only 0.13 acres of the garden's 14.8 total acres. The sliver area does not contribute to Hakone Garden's eligibility for the National Register. The project will have No Adverse Effect on Hakone Gardens.

An historic archaeological site (CA-SCL-368/H) was found eligible for the National Register. The establishment of an Environmentally Sensitive Area (ESA) will protect the site from any potential effects. No mitigation is proposed because the project will have No Adverse Effect on historic properties.

If buried cultural materials are encountered during construction, it is the Department's policy to stop work in the area of discovery until a qualified archaeologist can evaluate the nature and significance of the finding

VISUAL

Impacts:

The proposed upslope soil-nail retaining walls of up to 40 feet in height, and the associated tree/vegetation removal required for roadway widening would have visual impacts. They would have an overall combined length of approximately 1,225 feet (0.23 mile). In addition, shoulder widening, roadway re-alignment and shoulder metal beam guardrails in some locations are proposed but are not anticipated to have substantial effects. Project impacts include decline in visual quality due to:

- Visual intrusion/incompatibility of upslope retaining walls and concrete barrier as seen in views from the road;
- Visual intrusion/incompatibility of upslope retaining walls as seen in views to the road, including views from residences, parks, or the valley floor;
- Tree and vegetation removal due to widening and wall construction; and
- Visible impacts to the historic integrity of eligible state or national historic properties.

Construction staging within the scenic highway corridor, if visible from the highway, could have the potential to cause temporary visual impacts.

Proposed Mitigation Measures:

Avoidance, minimization, and mitigation measures would be implemented in accordance with the Department's standards and recommendations for visual impacts. The following Visual Mitigation (VM) Measures would be implemented at all three project locations:

VM-1: TREE AND VEGETATION REMOVAL MEASURES

- Minimization or avoidance of tree/vegetation removal due to construction to the greatest possible extent:
 - Minimization of existing tree and shrub removal to the greatest possible extent. The limit of work shall be kept to the minimum possible footprint, not to exceed 5 feet from the edge of retaining wall;
 - Clearing and grubbing is to occur no farther than five feet from the edge of the retaining wall;
 - Existing vegetation outside of clearing and grubbing limits shall be protected from the contractor's operations, equipment, and materials storage;
 - Tree trimming by the contractor shall be limited to that required in order to provide a clear work area;
 - High visibility temporary fencing, if feasible, shall be placed around the area where significant trees or other desirable vegetation are to be protected prior to the commencement of wall construction;
 - All trees to be removed shall be marked in the field by the Contractor and approved by the Resident Engineer prior to removal; and
 - Design exceptions shall be implemented, as practicable, to avoid removal of significant existing vegetation.
- Highway planting:
 - Replacement of trees and shrubs at Location 2 shall be in place, where feasible;
 - Tree replacement planting, may be implemented in other locations if appropriate to mitigate for major loss of tree canopy, as determined by the project landscape architect;
 - All disturbed areas of native vegetation shall be replaced with similar locally-native vegetation at a minimum replacement ratio to be determined by Project Biologists; and
 - Required mitigation planting shall be funded through the parent roadway contract, programmed and completed as a separate contract within two years of completion of all roadwork.

VM-2: RETAINING WALL MEASURES

- Use appropriate context-sensitive wall texture and color treatments to minimize contrast with the existing natural and/or historic setting. All walls would be treated with color and texture to reduce reflectivity of retaining walls visible from to the valley floor viewshed;
- Employ integral coloring in bottom barrier portion of upslope retaining walls to reduce overall color contrast of the walls; and

- Wall and barrier texture treatments shall be coordinated and carry consistent themes throughout the corridor.

VM-3: LIGHT AND GLARE MEASURES

- All Construction lighting shall be limited to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.

VM-4: CONSTRUCTION IMPACT MEASURES

- Unsightly material and equipment storage and staging shall not be visible within the foreground of the highway corridor to the extent feasible. Where such siting is unavoidable, material and equipment shall be visually screened where feasible to minimize visibility from the roadway and nearby sensitive off-road receptors;
- Construction, staging, and storage areas shall be screened where feasible by visually opaque screening wherever they will be exposed to public view for extended periods of time;
- Construction activities shall be phased to minimize the duration of disturbance to the shortest feasible time;
- All areas disturbed by construction, staging and storage shall be re-vegetated when feasible; and
- Construction activities adjacent to residences shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.

GEOLOGY/SOILS/SEISMIC/TOPOGRAPHY

Landslide/Slope Stability

Locations #1, #2 and #3 are located in areas that are prone to landsliding.

Seismicity

Location #1 is located within one mile of the San Andreas Fault; a major earthquake could induce a significant ground shaking. The San Andreas Fault has the potential for a magnitude 7.5 or greater earthquake.

BIOLOGICAL ENVIRONMENT

Natural Environment

A literature review and comprehensive background search was performed for the proposed project. Field surveys of the three project locations were conducted, during which vegetation communities were recorded. There were no wildlife sightings. Jurisdictional wetlands and other waters of the United States (U.S.) were delineated according to the U.S. Army Corps of Engineers (USACE) delineation guide.

Biotic Communities

Four biotic communities occur in the vicinity of the proposed project: ruderal vegetation, riparian, woodland and potential seasonal wetlands. The proposed project would impact the Douglas fir forest, Southern sycamore alder riparian woodland, lacustrine and riverine communities. These

communities may provide habitat for special species in the Biological Study Area (BSA). Implementing the avoidance and minimization measures will limit the impacts to the Douglas fir forest, Southern Sycamore alder riparian and ruderal communities. Approximately 0.49 acre of mixed woodlands will be permanently impacted by the construction actions.

Jurisdictional Waters

Delineation of wetlands and other waters of the U.S. were conducted on April 16, 2008. No wetlands in the BSA will be impacted by the proposed project.

Special Status Species

Special status wildlife species that have any potential to occur within the project area include the California red-legged frog (*Rana aurora draytonii*), Western pond turtle (*Clemmys marmorata*), Cooper's hawk (*Accipiter cooperii*), White-tailed kite (*Elanus leucurus*), Long-eared owl (*Asio otus*), Pallid bat (*Antrozous pallidus*) and the American badger (*Taxidea taxus*). None of the species were observed during the field surveys. Preconstruction surveys will be conducted for the seven species listed above. Avoidance and minimization measures will be implemented to prevent impacts to these species.

Raptor species and other migratory birds protected under the federal Migratory Bird Treaty Act, including Cooper's hawk, White-tailed kite and the Long-eared owl may use the project area for nesting. Active nesting stands will be identified prior to project construction. Activities such as removal of nests during the non-breeding season and avoidance of nest disturbance during construction activities will reduce potential effects.

Special status plant species that have the potential to occur within the project area include the robust spineflower, Franciscan onion (*Allium peninsular* var. *franciscanum*), Santa Cruz mountains pussypaws (*Calyptidium parryi* var. *hessea*), western leatherwood (*Dirca occidentalis*), Loma Prieta hoita (*Hoita strobilina*), Arcuate bush-mallow (*Malacothamnus arcuatus*), Davidson's bush-mallow (*Malacothamnus davidsonii*) and Robust monardella (*Monardella villosa* ssp. *globosa*). None of these plant species were observed during the field surveys. Preconstruction surveys will be conducted for the seven species listed above. Avoidance and minimization measures will be implemented to prevent impacts to these species.

Tree Removal

California State Senate Concurrent Resolution No. 17 was filed with the Secretary of State on September 1, 1989. This resolution addresses the protection of native Valley/Coast live oak woodlands with respect to the land use/transportation planning projects. The resolution specifically calls for State agencies to "preserve and protect native oak woodlands to the maximum extent feasible," or "provide for replacement plantings where designated oak species are removed from oak woodlands." Various sections of the California Fish and Game Code, including Sections 3503, 3503.5, 3511 and 3513, apply to nesting birds or birds otherwise fully protected. Tree removal activities could alter nesting behavior, jeopardize eggs or young in nests or reduce parental care and would result in violation.

The Department, in consultation with California Department of Fish and Game, will determine mitigation/replacement ratios. It is proposed that native trees removed will be replaced at an offsite

mitigation bank at a 3:1 ratio. Non-native and ornamental trees will be replaced at a ration of 1:1 onsite.

Hazardous Waste

Soil contaminated with Aerial Deposited Lead (ADL) and Serpentine asbestos may be within the project sites. The Department will perform tests for ADL and asbestos during the Plans, Specifications and Estimates (PS&E) stage, which will occur prior to construction. If either of these contaminants is found, special handling would be required. This would include implementing a Department health and safety plan. All activities involving contaminated soil will be planned to comply with all the regulatory agencies' requirements.

Costs, Funding and Programming

The proposed project will be funded by the Safety Improvements Category (201.010) of the State Highway Operational Protection Program (SHOPP) that is part of the State Highway Account. The SHOPP is a multi-year capital improvement program of transportation projects on the State Highway System. The main objective of the SHOPP is to preserve and protect the highway system and not add capacity to the state highway system. The estimated cost of this project is approximately nine million dollars. The funding was reserved when the Project Study Report (PSR) for this project was approved on March 30, 2007. The construction cost of this proposed project is estimated to be \$9,869,000, and the right-of-way cost is estimated to be \$131,000, bringing the total cost to \$10 million. The proposed project will be programmed in the SHOPP "Two- and Three-Lane Safety Monitoring" program (program code 201.010) for the 2009/10 fiscal year.

Table S-1: Permits and Approvals Status

Agency	Permit/Approval	Status
California Department of Fish and Game	1602 Streambed Alteration Agreement	To be acquired during PS&E.
State Water Resources Control Board	Section 402 – National Pollution Discharge Elimination System Statewide Storm Water Permit	Best Management Practices will be incorporated into the project to reduce discharge of pollutions.

Table S-2: Impacts and Mitigation Issues

Affected Resource	Potential Impacts	Mitigation, Minimization, and/or Avoidance Measures	Significance Finding After Mitigation Incorporation
Visual	Tree & vegetation removal due to widening and wall construction	Minimization of existing tree and shrub removal to the greatest possible extent. The limit of work shall be kept to the minimum possible footprint, not to exceed 5 feet from the edge of retaining wall	Less than significant
		Clearing and grubbing is to occur no farther than five feet from the edge of the retaining wall	
		Existing vegetation outside of clearing and grubbing limits shall be protected from the contractor's operations, equipment, and materials storage	
		Tree trimming by the contractor shall be limited to that required in order to provide a clear work area	
		High visibility temporary fencing, if feasible, shall be placed around the area where significant trees or other desirable vegetation are to be protected prior to the commencement of wall construction	
		All trees to be removed shall be marked in the field by the Contractor and approved by the Resident Engineer prior to removal	
		As far as practicable, design exceptions shall be implemented to avoid removal of significant existing vegetation	
	Highway planting	Replacement of trees and shrubs at Location 2 shall be in place, where feasible	
		Tree replacement planting, including large-container plantings, may be implemented in other locations if appropriate to mitigate for major loss of tree canopy, as determined by the project landscape architect	
		All disturbed areas of native vegetation shall be replaced with similar locally-native vegetation at a minimum replacement ratio to be determined by Project Biologists	
Required mitigation planting shall be funded through the parent roadway contract, programmed and completed as a separate contract within two years of completion of all roadwork			
Proposed construction of upslope soil-nail retaining walls of up to 40 feet in height and an overall combined length of approximately 1,225 feet (0.23 mile)		Use appropriate context-sensitive wall texture and color treatments to minimize contrast with the existing natural and/or historic setting. All walls would be treated with color and texture to reduce reflectivity of retaining walls visible from to the valley floor viewshed	Significant
		Employ integral coloring in bottom barrier portion of upslope retaining walls to reduce overall color contrast of the walls	
		Wall and barrier texture treatments shall be coordinated and carry consistent themes throughout the corridor	

Affected Resource	Potential Impacts	Mitigation, Minimization, and/or Avoidance Measures	Significance Finding After Mitigation Incorporation
Visual	Construction	Unightly material and equipment storage and staging shall not be visible within the foreground of the highway corridor to the extent feasible. Where such siting is unavoidable, material and equipment shall be visually screened where feasible to minimize visibility from the roadway and nearby sensitive off-road receptors	Less than significant
		Construction, staging, and storage areas shall be screened where feasible by visually opaque screening wherever they will be exposed to public view for extended periods of time	
		Construction activities shall be phased to minimize the duration of disturbance to the shortest feasible time	
		All areas disturbed by construction, staging and storage shall be re-vegetated when feasible	
		Construction activities adjacent to residences shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed	
		Construction activities shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed	
Cultural	Hakone Gardens was found eligible for the National Register. There will be a sliver take from the gardens, but it will be only 0.13 acres of the garden's 14.8 total acres	No mitigation is proposed because the project will have No Adverse Effect on historic properties	Less than significant
	An historic archaeological site (CA-SCL-368/H) was found eligible for the National Register	No mitigation is proposed because the establishment of an Environmentally Sensitive Area (ESA) will protect the site from any potential effects, in accordance with the Section 106 Programmatic Agreement	Less than significant
Water Quality	Construction activities will disturb 2.63 acres of soil area, add 0.32 acre of new impervious pavement and rework 1.59 acres of existing pavement. Sedimentation from disturbed soil areas could significantly degrade the quality of receiving waters	Construction Site Best Management Practices (BMP) for this project will include soil stabilization practices, sediment control practices, tracking control practices, wind erosion control and non-stormwater controls	Less than significant
	After construction general pollutants such as sediment and heavy metals could also degrade the water quality in the receiving waters	Construction Site Best Management Practices (BMP) for this project will include waste management and material pollution controls	Less than significant
	Pollutants from construction activities may impact a potential seasonal wetland.	A SWPPP will be implemented prior to construction to avoid and minimize discharges into the potential seasonal wetland. This is a condition of the CWA 401 permit	Less than significant

Affected Resource	Potential Impacts	Mitigation, Minimization, and/or Avoidance Measures	Significance Finding After Mitigation Incorporation
Geology	Rockfall, debris flow and slope stability may be potential impacts associated with the proposed project	Exploration will be necessary to determine soil types and strengths and structural conditions of the geology. Soil borings, rock coring, cone penetrometry studies and geophysical studies will be incorporated in the exploration process. Laboratory testing may be required to determine soil strength, permeability, moisture content and grain size	Less than significant
	The alignment is within one mile of the historically active San Andreas Fault zone	Seismic refraction at each site will help determine the excavatability of the subsurface materials	Less than significant with mitigation
	Groundwater could be present during pile installation	Groundwater levels will be determined with borings as part of the Geotechnical Design Report investigation. Groundwater levels fluctuate seasonally and should be monitored through the winter to find the highest levels	Less than significant
Hazardous Waste	Aerial Deposited Lead (ADL) contaminated surface soil may be present within the project limits	The Department will perform testing for ADL and asbestos during the PS&E stage, which will occur prior to construction. If either of these contaminants is found, special handling would be required. This would include implementing a Department health and safety plan. All activities involving contaminated soil will be planned to comply with the various regulatory agencies' requirements	Less than significant
	Serpentine asbestos may be present within the project limits		
Biology	93 individual native trees will be removed	Native trees will be replaced at an offsite mitigation bank at a 3:1 ratio. Non-native and ornamental trees will be replaced at 1:1 ratio onsite	Less than significant
	California red-legged frog may enter the project vicinity during the rainy season	Protective and preventative measures such as pre-construction surveys and limiting the construction window will be included in the PS&E package. Potential habitat will be delineated adjacent to the project footprint as environmentally sensitive areas and shown on the plans. ESA fencing and wildlife exclusion fencing will be used as appropriate to protect habitat and species. The Department in conjunction with the responsible agencies will develop a relocation strategy before construction begins to avoid individual take	Less than significant
	Western Pond Turtle may enter the project vicinity		Less than significant
	Cooper's hawk may enter the project vicinity	Protective and preventative measures such as surveys for bird nesting within the BSA throughout the nesting season and nesting prevention measures. The work window for clearing, grubbing and tree removal will occur outside the nesting season. Potential habitat will be delineated adjacent to the project footprint as environmentally	Less than significant
	White-tailed Kite may enter the project vicinity		Less than significant

Affected Resource	Potential Impacts	Mitigation, Minimization, and/or Avoidance Measures	Significance Finding After Mitigation Incorporation
	Long-eared Owl may enter the project vicinity	sensitive area(s) and shown on the plans. ESA fencing and wildlife exclusion fencing will be used as appropriate to protect habitat and species. The Department in conjunction with the responsible agencies will develop a relocation strategy before construction begins to avoid individual take	Less than significant
	Pallid bat may enter the project vicinity	Protective and preventative measures such as pre-construction surveys and limiting the construction window will be included in the PS&E package. Potential habitat will be delineated adjacent to the project footprint as environmentally sensitive areas and shown on the plans. ESA fencing and wildlife exclusion fencing will be used as appropriate to protect habitat and species. The Department in conjunction with the responsible agencies will develop a relocation strategy before construction begins to avoid individual take. The Department may limit tree removal from September 1st to March 1st	Less than significant
	American badger may enter the project vicinity	Protective and preventative measures such as pre-construction surveys and limiting the construction window will be included in the PS&E package. Potential habitat will be delineated adjacent to the project footprint as environmentally sensitive areas and shown on the plans. ESA fencing and wildlife exclusion fencing will be used as appropriate to protect habitat and species	Less than significant
	Robust spineflower may be found within the project vicinity	The Department will conduct preconstruction surveys during the first blooming period before construction for the project begins. In the event it is found in the BSA but not within the footprint, the Department will delineate the area as environmentally sensitive on the project plans and protect it using ESA fencing. If the species is found within the footprint, then the Department will contact USFWS and CDFG to obtain the appropriate collection permits and develop relocation plans	Less than significant
	Franciscan Onion may be found within the project vicinity	The Department will conduct preconstruction surveys during the first blooming period before construction for the project begins. In the event it is found in the BSA but not within the footprint, the Department will delineate the area as environmentally sensitive on the project plans and protect it using ESA fencing. If the species is found within the footprint, then the Department will contact CDFG to develop and implement a relocation plan	Less than significant
	Santa Cruz Mountains Pusspaws may be found within the project vicinity	In cooperation with CDFG, the Department will develop a protection; removal and relocation plan for rare, endangered and threatened plant species, prior to project construction. The Department will conduct preconstruction surveys during the first blooming period before construction for the project begins. If a specimen is found within the BSA but not in the project footprint, then the Department will delineate the area as environmentally sensitive on the project plans and protect it using ESA	Less than significant
	Western leatherwood may be found within the project vicinity	In cooperation with CDFG, the Department will develop a protection; removal and relocation plan for rare, endangered and threatened plant species, prior to project construction. The Department will conduct preconstruction surveys during the first blooming period before construction for the project begins. If a specimen is found within the BSA but not in the project footprint, then the Department will delineate the area as environmentally sensitive on the project plans and protect it using ESA	Less than significant

Affected Resource	Potential Impacts	Mitigation, Minimization, and/or Avoidance Measures	Significance Finding After Mitigation Incorporation
	Loma Prieta hoita may be found within the project vicinity	fencing	Less than significant
	Arcuate bush-mallow may be found within the project vicinity		Less than significant
	Davidson's bush-mallow may be found within the project vicinity		Less than significant
	Robust monardella may be found within the project vicinity		Less than significant

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Chapter 1 – Proposed Project

1.1. INTRODUCTION

The Department of Transportation (Department) proposes to reduce the number of cross-centerline accidents at three spot locations on a stretch of 4.25 miles on State Route (SR) 9 from 2.5 miles north of the State Route 35 junction to the 6th Street intersection (PM 2.5 to 7.0) in the City of Saratoga, Santa Clara County. SR 9 is a winding two-lane undivided conventional highway that runs north/south through the Santa Cruz Mountains connecting SR 17 with the Saratoga Gap Open Space Preserve and Santa Cruz County. Within the project limits, SR 9 is officially designated a State Scenic Highway and is generally bordered by hills on one side and valleys on the other side. The existing facility within the project limits consists of two approximately 11-foot lanes, separated by a solid double-yellow stripe, and outside paved shoulders that vary from less than one foot to more than eight feet in width. At many locations, there are steep hills where the toe slope abuts the existing edge of shoulder. The project is located in a biologically sensitive area. Figure 1.1 shows the project location and Figure 1.2, the Project Vicinity Map, identifies the three spot locations.

The project segment was identified as needing improvements in a statewide “Two- and Three-Lane Safety Monitoring” program conducted by the Department’s Office of Traffic Safety. The Safety Improvements Category (201.010) of the State Highway Operational Protection Program (SHOPP), which is part of the State Highway Account, will fund the proposed project. The SHOPP is a multi-year capital improvement program of transportation projects on the State Highway System. The main objective of the SHOPP is to preserve and protect the highway system and not to add capacity to the state highway system. The cost of the project is estimated to be approximately ten million dollars. The funding was reserved when the Project Study Report (PSR) for this project was approved on March 30, 2007.

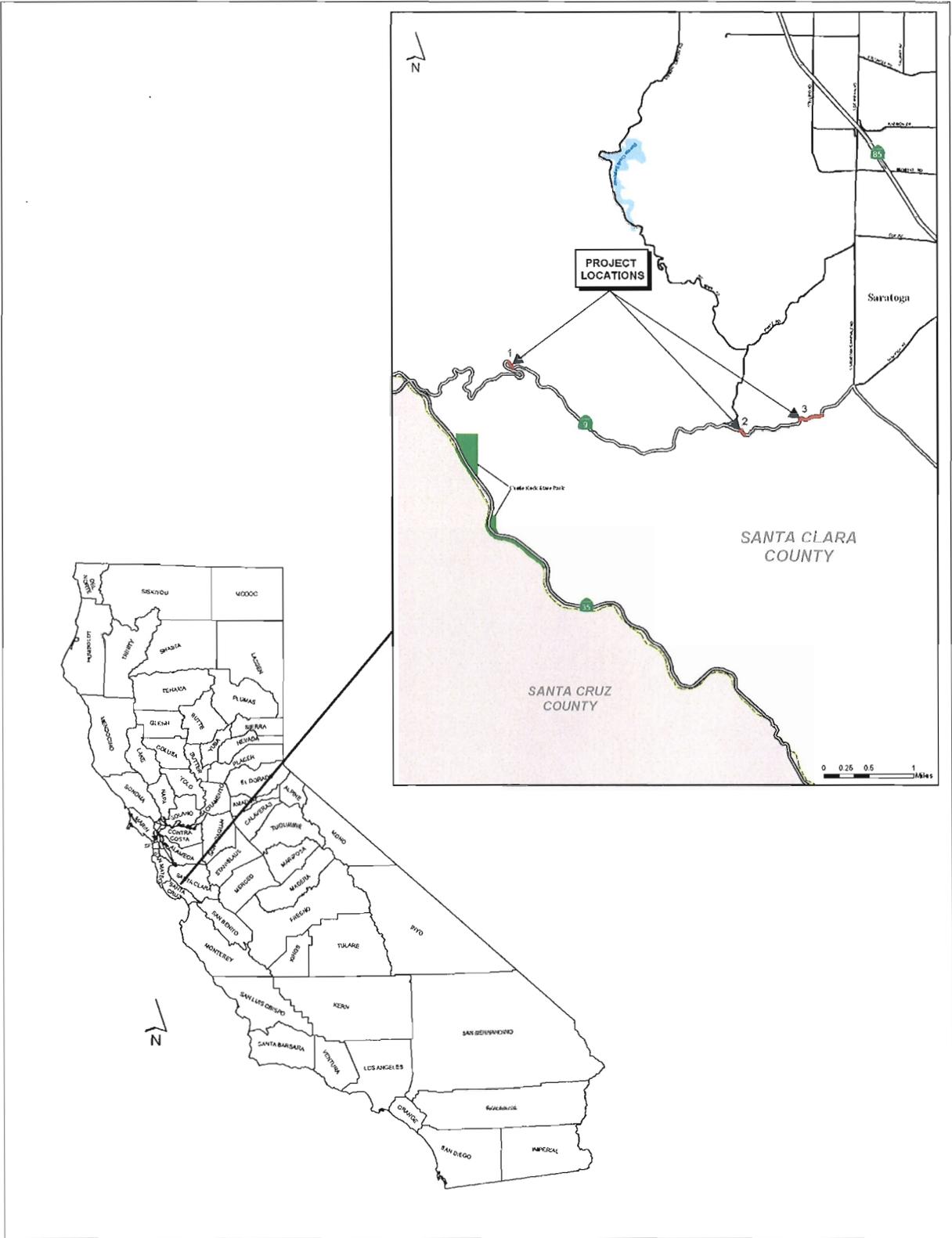


Figure 1.1: Project Location Map

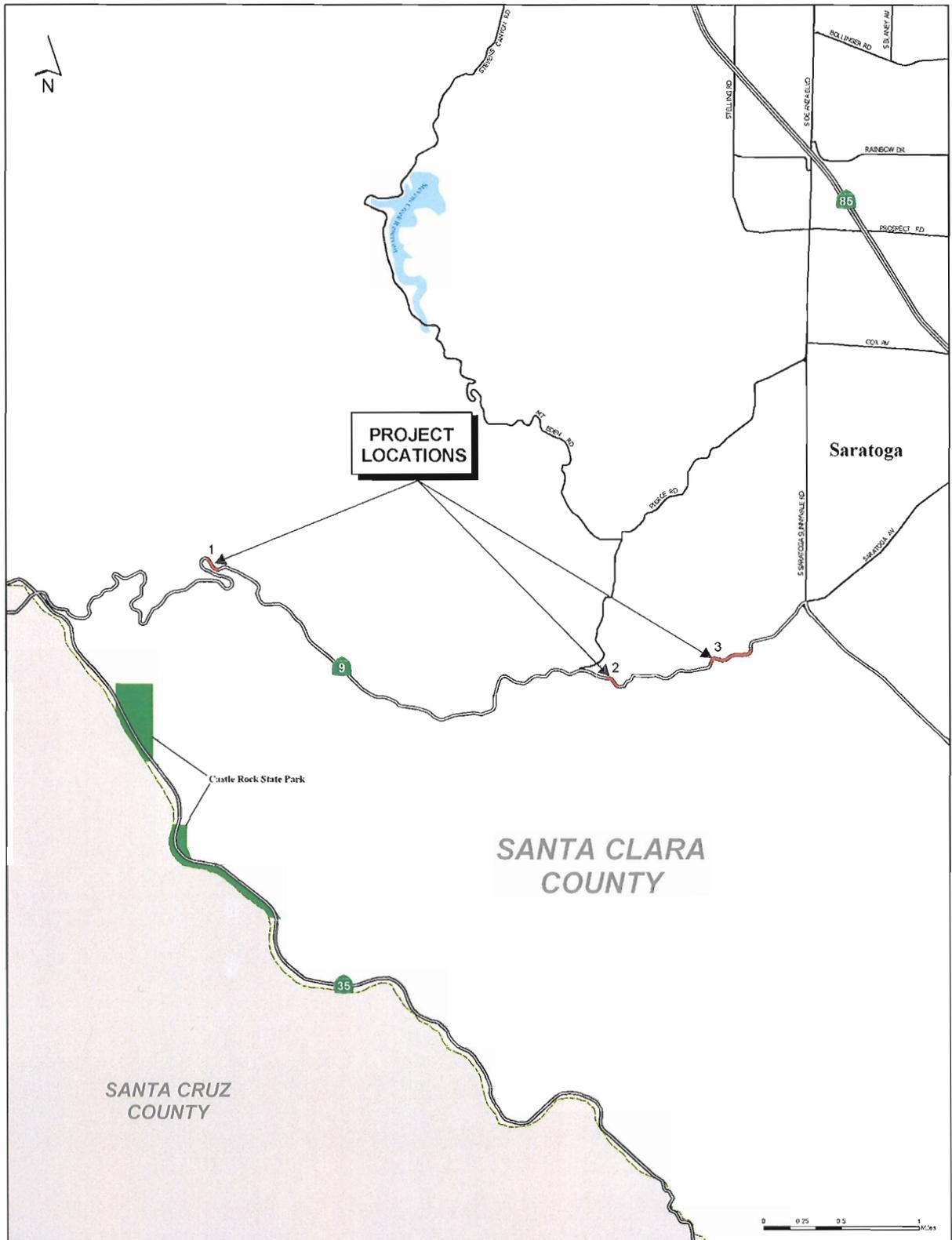


Figure 1.2: Project Vicinity Map

1.2. PURPOSE AND NEED

1.2.1. Purpose

The purpose of this project is to improve traffic safety and the operation of State Route (SR) 9 at the following three locations: 1) PM 2.5/2.7; 2) PM 5.9/6.2; and 3) PM 6.7/7.0.

1.2.2. Need

The existing capacity is measured by the average annual daily traffic (AADT). The AADT along this segment of SR 9 is 4,400 vehicles (2.58% trucks). This is expected to increase to a projected demand of 6,950 vehicles by the year 2028. The project would not change the current generally free flowing traffic conditions.

The segment of SR 9 at the three spot locations is almost double the number of accidents than similar facilities statewide. For the eight-year study period between October 1, 2000, and September 30, 2008, the accident rates, per million vehicle miles, along this segment of SR 9, and accident types were as follows:

ACTUAL			STATEWIDE AVERAGE		
*F	**F+I	Total	F	F+I	Total
.070	2.30	4.44	.038	0.91	2.04

TYPE OF COLLISION	NUMBER
Hit Object	110
Overtake	50
Head-On	30
Sideswipe	29
Rear-End	14
Broadside	10
Auto/Pedestrian	1
Other/Not Stated	11
<hr/>	
Total:	255

* F = Fatal accidents **F+I = Fatal + Injuries.

A detailed investigation determined that 45 of these 109 accidents involved vehicles that crossed the centerline, two of them involving fatalities; 24 resulted in head-on collisions; 10 were sideswipe collisions; 4 where the vehicle overturned; 5 were in a broadside collision; and 2 in a hit-object collision. Further study revealed that these accidents were caused by speeding, improper turns, the influence of alcohol/drugs, or other violations. Constructing the improvements proposed in this project would create an upgraded facility that would better assist out-of-control motorists from crossing the centerline, thereby, reducing the number of these types of accidents in the future.

1.3. PROJECT DESCRIPTION

State Route 9 (SR9) is a two-lane undivided conventional highway that runs north/south in Santa Clara County and winds through the Santa Cruz Mountains connecting State Route 17 with the Saratoga Gap Open Space Preserve and Santa Cruz County. Within the project limits (PM 2.5 to PM 7.0), SR9 is designated as an official State Scenic highway and is bordered by hills on one side and valleys on the other side. The existing facility within the project limits consists of two approximately 11-foot lanes separated by a solid double-yellow strip and outside paved shoulders that vary from less than one foot to more than eight feet in width. At many locations, there are steep hills where the toe slope abuts the existing edge of the shoulder.

This project proposes to construct improvements at three spot locations. The improvements include: improving sight distance; upgrading the existing lanes and shoulders; increasing the super-elevation; installing metal beam guardrails; and placing warning signs. To accommodate these improvements, the existing slope would be cut back and soil nail retaining walls would be constructed.

Detail description of work for each location as follows:

1.3.1. Location# 1: Post Mile 2.5/2.7

Existing Conditions:

SR 9 through Location #1 is a two-lane, undivided highway with the northbound (right) lane width varying from 10.6-11.4 feet and the southbound (left) lane width varying from 10-12 feet. The northbound shoulder width varies from 0-2 feet and the southbound shoulder width varies from 2-7 feet.

Existing right of way (ROW) varies from 20-40 feet on the right, and 20-43 feet left of the existing centerline.

Metal Beam Guard Rail (MBGR) exists from PM 2.50 to PM 2.51 along the left shoulder.

Proposed Improvements:

- The existing northbound slope would be cut back to a depth of 35 feet from the existing to improve the sight distance throughout location #1;
- A soil-nail retaining wall would be constructed from PM 2.56 to PM 2.61 (Approximately 290 feet long). The height of the proposed soil-nail retaining wall at this location would vary from 4 to 40 feet, and the distance from the existing centerline to the base of the proposed wall would vary from 20-50 feet;
- The northbound shoulder would be widened to a minimum of 4 feet;
- The existing structural section of the roadbed, from PM 2.50 to PM 2.66, would be reconstructed to improve the existing super elevation;
- Drainage improvements at PM 2.55 and 2.62 would include removing the existing Drainage Inlet (DI) at the northbound shoulder, extending the existing drainage pipe and constructing a new DI over the extended pipe;
- Remove the existing MBGR along the southbound shoulder from PM 2.50 to PM 2.51; and
- Upgrade the MBGR along the southbound shoulder from PM 2.50 to PM 2.57.

Proposed Right of Way and Easements:

- ROW may need to be acquired up to 55 feet right of the existing right of way; and
- Distance between existing ROW and necessary permanent easement for the retaining wall would be up to 132 feet.

1.3.2. Location# 2: Post Mile 5.9/6.2**Existing Conditions:**

SR 9 through this location is a two-lane, undivided highway with the northbound (right) lane width varying from 10.5-11.9 feet and the southbound (left) lane width varying from 10.0-11.3 feet. The northbound shoulder width varies from 1-3 feet and the southbound shoulder width varies from 2-3 feet.

The existing ROW varies from 14-20 feet on the right (northbound), and 30-36 feet wide left (southbound) of the existing centerline.

MBGR exists from PM 5.91 to PM 5.95 along the northbound shoulder.

Proposed Improvements:

- To improve the sight distance through location #2, the existing southbound slope would be cut back up to 25 feet;
- The soil-nail retaining wall would be constructed from PM 5.85 to PM 6.00 (approximately 722 feet). The height of the proposed wall would vary from 4 to 25 feet. The distance from the existing centerline to the proposed wall base would vary from 17-32 feet;
- Southbound shoulders would be constructed with a minimum width of 4 feet wide.;
- To improve the super elevation, the existing structural section would be reconstructed from PM 5.85 to PM 6.00;
- Drainage improvements at PM 5.96;
- Replace the existing damaged corrugated metal pipe (18 inches in diameter);
- Construct a new Drainage Inlet at the southbound shoulder;
- Remove the existing MBGR along the right shoulder from PM 5.91 to PM 5.95;
- Upgrade the MBGR along the right shoulder from PM 5.89 to PM 5.98;
- The existing profile grade, from PM 6.04 to PM 6.07, will be reduced to improve the stopping/sight distance;
- The existing alignment and travel way lane width will be maintained, only the existing profile would be improved by reducing the grade. The existing features such as the MBGR and the DI would be adjusted in place to the required height to match the new reduced profile; and
- Existing power poles would be relocated away from edge of travel way to provide better clearance. The following utilities would be relocated:

Type	Post Mile	Existing Distance to Utility from Centerline	Proposed Distance to Utility from Centerline
Power Pole	5.87	13' Right	35'
Power Pole	5.91	21' Right	35'
Power Pole	5.97	21' Left	35'

Power Pole	6.05	16' Left	32'
Power Pole	6.05	19' Left	32'

Proposed Right of Way and Easements:

- Permanent ROW would be needed up to 25 feet left of the existing ROW;
- Permanent easement would be needed up to 70 feet left of the existing ROW for the soil nail retaining wall; and
- Permanent easement would be needed up to 10 feet right of the existing ROW for the removal and installation of the MBGR and the roadway profile correction.

1.3.3. Location# 3: Post Mile 6.7/7.0**Existing Conditions:**

- SR 9 through this location is a two-lane, undivided highway with the northbound lane width varying from 10.9-11.6 feet and the southbound lane width varying from 10.9-11.5 feet northbound (right) shoulder width varies from 2-3 feet and southbound (left) shoulder width varies from 2- 4 feet;
- The existing ROW varies from 29-34 feet on the northbound side and 26-31 feet on the southbound from the existing Centerline; and
- MBGR exists from PM 6.71 to PM 6.73 on the right shoulder and from PM 6.70 to PM 6.84 on the left shoulder.

Proposed Improvements:

- To improve the sight distance through location #3, the existing right side slope would be cut back up to 30 feet back. The soil- nail retaining wall would be constructed from PM 6.71 to PM 6.75 (Approximately 213 feet). The height of the proposed wall would vary from 5-30 feet; and the distance between existing centerline and the proposed wall varies from 21-46 feet;
- Widening the right shoulder and width would vary from 2 to 8 feet;
- The existing structural section of the roadbed from PM 6.71 to PM 6.75 would be reconstructed to improve the existing super elevation;
- Drainage improvements at PM 6.79 and PM 6.81,
- Extend the existing drainage pipe to widened the northbound (right) shoulder; and
- Utility Relocation: The following utilities will have to be relocated.

Type	Post Mile	Existing Distance to Utility from Centerline	Proposed Distance to Utility from Centerline
Telephone Pole	6.76	20'	32' Right
Power Pole	6.76	21'	32' Right
Joint Use Pole	6.79	30'	32' Right
Pole	6.82	25'	32' Right

Proposed Right of Way and Easements:

- Distance between the existing and the proposed ROW on the right side would be up to 40 feet; and

- Distance between the existing ROW and the necessary permanent easement for the retaining wall would vary from 0-80 feet.

1.4. ALTERNATIVES

1.4.1. Build Alternatives

In general, an EIR/EA will consider at least two build alternatives due to the range of reasonable alternatives required under CEQA. However in this case, the Project Development Team (PDT) determined that there is only one feasible build alternative (improvements at the three spot locations where there is the concentration of accidents) which meets the Purpose and Need of the proposed project, i.e. improve traffic safety at the three locations. Other build alternatives are therefore not being separately evaluated.

The PDT has identified improvements at the three spot locations, the Build Alternative, as the preferred alternative, subject to public review. Final identification of a preferred alternative will occur subject to the public review and comment period. The Build Alternative represents the most cost effective means to reduce cross-centerline accidents on the highway segment for which funding is available. The no-build project alternative would do nothing to reduce the risk of future cross-centerline accidents and is therefore considered inferior to any build alternative with acceptable environmental protection.

After the public circulation period, all comments will be considered, and the Department will make the final determination of the project's effect on the environment. In accordance with CEQA, the Department will certify that the project complies with CEQA, prepare findings for all significant impacts identified, prepare a Statement of Overriding Considerations for impacts that will not be mitigated below a level of significance, and certify that the findings and Statement of Overriding Considerations have been considered prior to project approval. The Department will then file a Notice of Determination with the State Clearinghouse that will identify whether the project will have significant impacts, mitigation measures were included as conditions of project approval, findings were made, and a Statement of Overriding Considerations was adopted. Similarly, if the Department, as assigned by FHWA, determines the NEPA action does not significantly impact the environment, the Department will issue a Finding of No Significant Impact (FONSI) in accordance with NEPA.

1.4.2. No-Build Alternative

This alternative maintains the existing conditions with no project-related activities. It would not provide any improvements to the existing SR 9 roadway. The No-Build Alternative would not meet the Purpose and Need of the project, i.e. to improve safety at the three locations experiencing high accident rates. The traveling public would continue to experience nearly twice the number of accidents at these three locations as on similar facilities statewide. The No-Build Alternative provides the baseline for existing environmental conditions against which the Build Alternative is compared.

1.5. PERMITS AND APPROVALS NEEDED

Table 1.1 Permits and Approval Status

Agency	Permit/Approval	Status
California Department of Fish and Game	1602 Streambed Alteration Agreement	To be acquired during PS&E.

Agency	Permit/Approval	Status
State Water Resources Control Board	Section 402 – National Pollution Discharge Elimination System Statewide Storm Water Permit	Best Management Practices will be incorporated into the project to reduce discharge of pollutions

1.6. COSTS AND FUNDING

The proposed project will be funded by the Safety Improvements Category (201.010) of the State Highway Operational Protection Program (SHOPP) that is part of the State Highway Account. The SHOPP is a multi-year capital improvement program of transportation projects on the State Highway System. The main objective of the SHOPP is to preserve and protect the highway system and not add capacity to the state highway system. The estimated cost of this project is approximately nine million dollars. The funding was reserved when the Project Study Report (PSR) for this project was approved on March 30, 2007. The construction cost of this proposed project is estimated to be \$9,869,000, and the right-of-way cost is estimated to be \$131,000, bringing the total cost to \$10 million. The proposed project will be programmed in the SHOPP “Two- and Three-Lane Safety Monitoring” program (program code 201.010) for the 2009/10 fiscal year.

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

This chapter provides the analysis of the potential impacts to the environment that would occur with the proposed project. Sections 2.1 through 2.4 of this chapter each address a different environmental issue area identified as relevant to the project. Each of these sections describes the regulatory setting and affected environment, and considers the effects of implementing the project.

Section 2.4, Non-Relevant Topics, provides a brief discussion of environmental considerations that would not be affected by the project and do not require extensive evaluation in this environmental document. Potential short-term impacts that could occur during project construction are addressed in Section 2.5, Construction Impacts. This chapter includes an evaluation of the project's potential to contribute to cumulative impacts that could occur through development of this project in conjunction with other nearby or related projects.

2.1. HUMAN ENVIRONMENT

2.1.1. Parks And Recreational Facilities

The predominant landscape in the project area consists of public parks and open spaces. The following parks and open space are in the vicinity of the proposed project (see Figure 2.1: Parks and Recreational Facilities):

- Sanborn-Skyline County Park (Santa Clara County);
- Castle Rock State Park (State of California);
- Stevens Creek County Park (Santa Clara County);
- Saratoga Gap Open Space Preserve (Mid-Peninsula Regional Open Space District);
- Fremont Older Open Space Preserve (Mid-Peninsula Regional Open Space District);
- Wildwood Park (City of Saratoga); and
- Hakone Gardens (Owned by City of Saratoga and managed by the Hakone Foundation).

The proposed project would have a minimal potential impact on the Hakone Gardens, a Section 4(f) Resource, and no potential impacts to other parks. Below is a detailed discussion of the potential project impacts/non-impacts for each park.

Sanborn-Skyline County Park covers 3,688 acres and is located between Saratoga and Skyline Boulevard, two miles from SR 9 on Sanborn Road. Sanborn-Skyline Park has over 15 miles of trails that showcase the geographic features of the park. Sanborn-Skyline Park also provides picnic areas, campgrounds, and a recreational vehicle campground. The proposed project would not have impacts on this facility.

Castle Rock State Park is located on SR 35, just two and one half miles southeast of the SR9 junction. Castle Rock State Park runs along the crest of the Santa Cruz Mountains with 32 miles of hiking and horseback riding trails. These trails are part of an even more extensive trail system that links the Santa Clara and San Lorenzo valleys with Castle Rock State Park, Big Basin Redwoods State Park, and the Pacific Coast. The proposed project would not impact this facility.

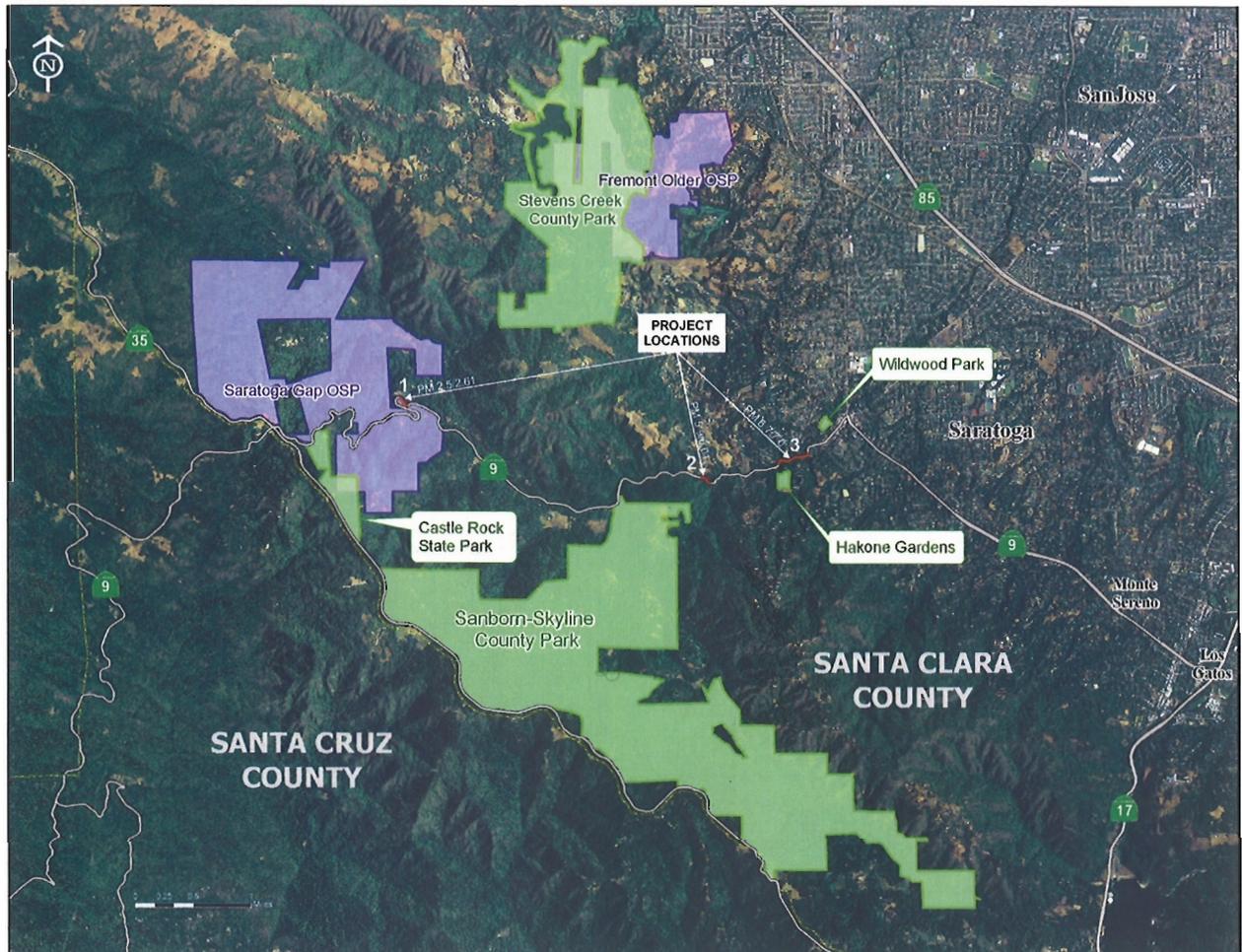


Figure 2.1: Parks and Recreational Facilities

Stevens Creek is located 3.2 miles from SR 9 and covers over 1,000 acres. It offers widely diverse recreational amenities, including a 92-acre reservoir. The park offers lush, densely wooded trails for a variety of users. The unique combination of recreational resources and natural beauty make Stevens Creek park a magnet for hikers, bicyclists, equestrians, and nature lovers. The proposed project would not impact this facility.

Saratoga Gap Open Space Preserve is a 1,780-acre outdoor recreational facility. The Saratoga Gap Trail parallels Skyline Boulevard passing under the spreading branches of weathered oaks before dropping into a cool Douglas fir forest. The trail ends across from the Hickory Oaks trailhead to Long Ridge Open Space Preserve and SR 35. Attractive lichen-covered boulders and sandstone outcropping add to the scenic value of this area. The proposed project would not impact this facility.

Located on the urban fringe and extending towards Mt. Eden Road to the south and Stevens Creek County Park to the west, the 739-acre Fremont Older Open Space Preserve offers a variety of experiences to hikers, bicyclists, and equestrians. Visitors are usually attracted to the open hayfields, Seven Springs Canyon, and Hunters Point, a 900-foot hilltop offering sweeping views

of the Santa Clara Valley. To the west are chaparral and oak covered ridges dropping steeply to Stevens Canyon. The proposed project would not impact this facility.

Wildwood Park is located in Saratoga with a wooded, creek setting. This park offers picnic facilities, a children's play area, two horseshoe pits, a volleyball court, restrooms and a stage. The proposed project would not impact this facility.

Owned by the City of Saratoga and managed by Hakone Foundation (a non-profit organization), the Hakone Gardens is the oldest Asian and Japanese estate in the Western Hemisphere with 18 acres nestled in the hills of Saratoga. The Hakone Gardens hosts over 40,000 visitors a year, a third of which travel from Asia, Europe, Australia, and Africa.

The proposed project would result in a de minimis use to the Hakone Gardens, a Section 4(f) resource. The proposed safety improvements at Location 3 (PM 6.7-PM7.0) will require acquiring a sliver of property that is currently part of the Hakone Gardens. The small strip is needed to construct a retaining wall (5 to 30 feet in height and 215 feet in length) and widen the shoulder to a full-width shoulder to improve the sight distance and reduce accidents at this location. Detailed discussion is addressed in Appendix B, Section 4(f) De Minimis Finding.

2.1.2. Utilities/Emergency Services

2.1.2.1. Affected Environment

The build alternatives would require relocating power poles within the project area. Location 1 would not require any relocation. There are five (5) power poles within Location 2 that would need to be relocated. Location 3 has four (4) poles: one (1) telephone pole, one (1) power pole, one (1) joint use pole, and one (1) pole that would require relocation.

2.1.3. Visual/Aesthetics

The information presented in this section is from the State Route 9 Safety Improvements Project, Visual Impacts Assessment report (*April 2009*) The study applied the Federal Highway Administration (FHWA) visual impact assessment methodology. This section describes the visual setting of the project study area, presents existing landscape character and visual quality of the project setting, by landscape unit (broad contiguous areas of similar scenic character), and landscape type (large-scale physiographic units), and identifies potential impacts from representative key viewpoints where viewers with potentially high sensitivity (e.g., adjacent residents) may experience adverse visual impacts as a result of the project. Visual quality is characterized and evaluated in terms of the descriptors vividness, intactness, and unity. Vividness refers to the striking and distinctive quality that makes a landscape powerful and memorable; intactness is the visual integrity of the landscape and its freedom from encroaching elements; unity is the visual coherence and compositional harmony of a landscape. Visual impacts are identified as a combination of the degree of project-related change to visual character and quality (the visual resource), and viewer response or overall sensitivity and exposure to visual change. Viewer sensitivity, i.e., the anticipated level of concern for visual quality and visual change, is based primarily on viewer activity type (e.g., recreational motorists, hikers, etc.) and associated scenic expectations, as well as viewer attitude surveys and local priorities and values, particularly as expressed in adopted public policy.

2.1.3.1. Regulatory Setting

The National Environmental Policy Act of 1969 as amended (NEPA) 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.C. 4331[b][2]). To further emphasize this point, the Federal Highway administration in its implementation of NEPA (23 U.S.C. 109[h]) directs that final decisions regarding 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.

Likewise, the California Environmental Quality Act (CEQA) 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.” (CA Public Resources Code Section 21001[b])

2.1.3.2. Affected Environment

The project is located on the eastern slope of the Santa Cruz Mountains, a portion of the Pacific Coast Mountain Range overlooking the Santa Clara Valley to the east, defining the valley’s western boundary. The SR 9 corridor is situated within canyons drained by Saratoga Creek. The predominant land use in the study area consists of public parks and open space. Wineries and associated vineyards, a private recreation facility and a relatively small number of residences are also located within the SR 9 corridor. These are not generally evident from the roadway, and allowable development within the corridor is very limited under the County General Plan.

Viewsheds

Regional Viewshed

The County of Santa Clara recently adopted amendments to its General Plan reflecting findings of a Viewshed Protection Study. That study included Geographic Information System (GIS) viewshed mapping of visible areas of the Santa Cruz Mountains as seen from selected key viewpoints on the valley floor. The focus of this viewshed mapping was toward regional rather than site-specific planning, and particularly, visibility from and effects upon viewpoints on the valley floor. Figures 2.2a and 2.2b depict close-ups of this County viewshed mapping in the vicinity of the proposed project locations. The different colors indicate levels of visibility to key valley floor viewpoints. White (uncolored) areas indicate that those locations were not visible from the control viewpoints of the study. As shown in Figure 2.2a, Location 1 would either be not visible or, accounting for a margin of error, would be of low visibility. As shown in Figure 2.2b, Locations 2 and 3 would not be visible from valley floor control viewpoints.

Project Viewshed

For most of its length, the scenic corridor of SR 9 as experienced by motorists is confined to the immediate visual foreground of the highway by the steep slopes of the surrounding canyons and, on the down slope side, by forest cover that blocks or heavily filters most potential views to the valley floor. Similarly, views of peaks from the highway are limited by the steepness of slopes adjacent to the roadway, and tall trees at the edge of the roadway. However, some open, long views of the valley to the east do exist, as depicted in Figure 2.3, Project Visual Setting.

Landscape Units

Two broad landscape units, the Santa Cruz Mountains and the Santa Clara Valley, characterize the project study area. Each is a distinctive geographic segment of the viewshed with a unity of landscape character and visual quality. The characterization of landscape units below, in terms of visual character, visual quality, and viewer response (visual sensitivity and exposure of their viewers), provides the baseline for evaluating potential project impacts. Figure 2.3 depicts landscape units, scenic view corridors, as well as notable scenic features and existing visual intrusions. Public parks and other popular visitor destinations representing potential sensitive off-site receptors are also indicated.

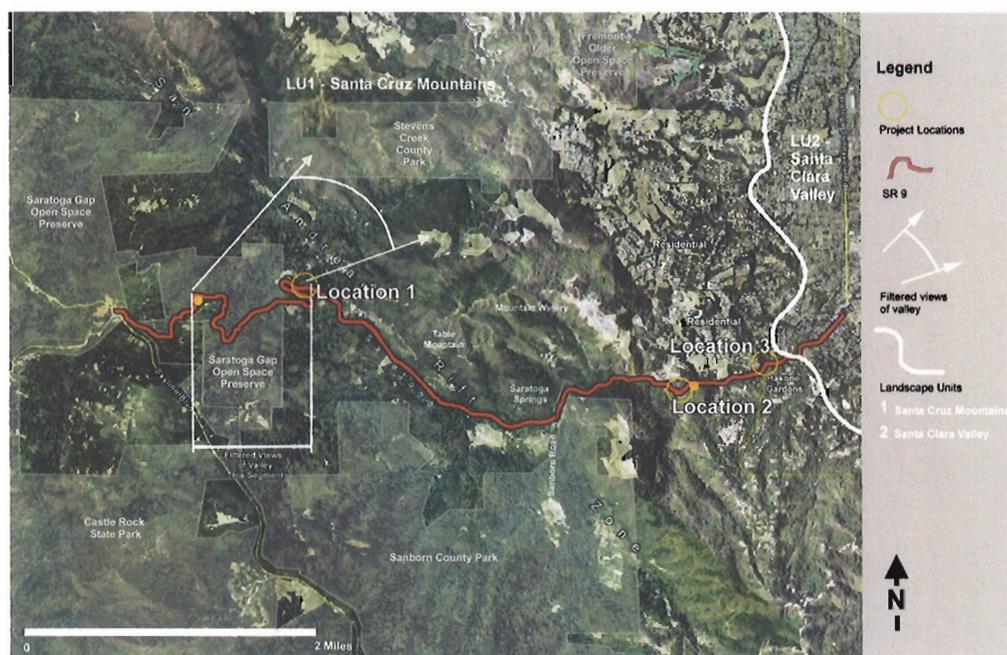


Figure 2.3: Project Visual Setting

The proposed project is located within Landscape Unit 1, Santa Cruz Mountains. However, the valley floor is also described because of potential viewing locations in that unit.

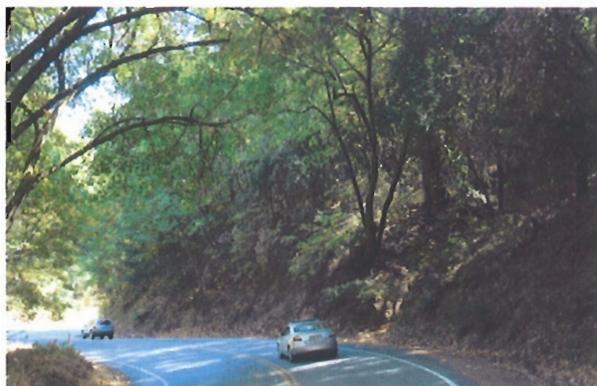
Landscape Unit 1: Santa Cruz Mountains

Visual Character

The corridor is scenically highly intact, with little disturbance in evidence and with a landscape character dominated by native mixed evergreen woodland. The highway follows the Saratoga Creek drainage. Several tributaries enter Saratoga Creek within the project limits. The corridor is characterized by very steep slopes that often abut the edge of the roadway. Although the downhill slopes potentially provide views of the valley below, in actuality such views are relatively few due to intervening forest cover. Existing view corridors to the valley are shown in Figure 2.3a and 2.3b. The mountainous topography within the project view-shed is dominated by Table Mountain (over 2,000 feet) to the north; and Summit Rock (over 3,000 feet) to the south.



Mixed Conifer Forest



Typical roadway views are characterized by enclosing canopies and marked patterns of light and shadow.



Downhill views are typically enclosed and screened by roadside forest cover.



Typical Maple/Madrone Canopy



Rare Open View of Valley



Rare Open View of Creek

Figure 2.3a: Landscape Unit 1 Typical Image Types

Existing Soil-Nail Wall West of Project Limits

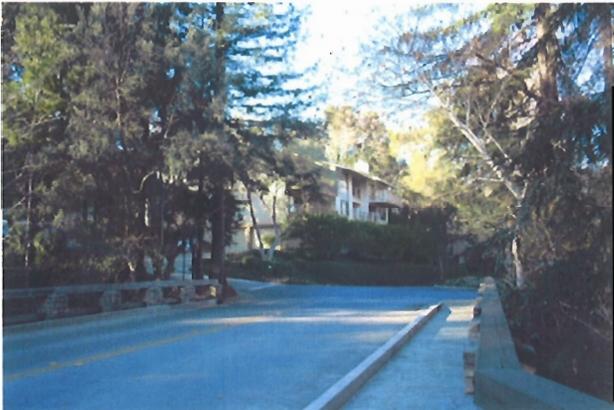


Existing Wall and Bridge, Saratoga Bridge

San Jose Water Company Intake and Gauging Station



Debris Fence, P.M. 6.1



Residences are well screened from views of motorists.



Figure 2.3b: Landscape Unit 1 Image Types: Existing Visual

Major image types within this landscape unit consist primarily of mixed evergreen-redwood forest, predominantly composed of redwood, madrone, and maple, with riparian areas of bay laurel and coast live oak. There are also hillsides of low-growing chaparral, although these are not highly evident from the roadway. Fleeting views of creek beds and open water may also be seen in several locations. As mentioned previously, wineries represent an important land use within the corridor but are not visually evident from the highway due both to topography and intervening forest cover. Residential development occurs within the corridor from the eastern project limit to the vicinity of Pierce Road, including a small number of homes adjacent to the roadway, although these are largely visually screened or heavily filtered from the view of motorists. Figure 2.3a and 2.3b depicts photos of typical image types within Landscape Unit 1.

Visual Quality

Overall, the scenic corridor within Landscape Unit 1 remains highly intact and vivid. Except in isolated, limited instances, the native forest landscape remains with few signs of disturbance. Existing residences are generally well screened to views from the road, and are limited to the highway segment east of Pierce Road. Existing visual intrusions include the San Jose Water Company Congress Springs Intake and gauging station on a portion of Saratoga Creek (P.M. 6.1), a debris fence near P.M. 6.1; metal fencing and an existing upslope retaining wall at Saratoga Creek P.M. 5.5; Saratoga Springs resort; an existing down slope concrete crash barrier adjacent to Location 1; and an upslope concrete sculpted-rock style retaining wall at approximately P.M. 0.88 outside the project limits. The overall proportion of SR 9 with existing visual intrusions is thus relatively low. The project landscape also exhibits high visual unity, defined by steep up-and-down hill slopes, and tall, dense evergreen forest that adjoins the right-of-way in most locations, confining most views to a narrow band of the highway foreground. One of the defining visual features of this portion of the corridor is its high degree of enclosure by the surrounding forest canopy, which often overhangs the roadway, and a resulting pattern of dappled, continually alternating light and shadow. Panoramic or exceptional long views of the Santa Clara Valley or other open views are generally lacking due to this visual enclosure by the forest on downhill slopes. Vividness is thus moderately high but this landscape unit is lacking in the visual variety and highly scenic long and panoramic vistas that characterize the highest level of landscape vividness. Overall, visual quality of this landscape unit is considered to be high.

Viewer Response

Viewers within this sparsely developed landscape unit consist predominantly of motorists on SR 9. These motorists typically include residents, recreational motorists, and high numbers of visitors to the area's numerous parks and wineries, including motorists en-route to Skyline Boulevard (SR 35) just west of the project limits. SR 35 is a county-designated scenic highway that follows the ridgeline of the Santa Cruz Mountains northward through the San Francisco Peninsula and southward to Highway 17. Due to the predominantly recreational and scenery-focused orientation of most motorists within the corridor, as well as the designated scenic status of the highway, the majority of viewers are presumed to have a high level of scenic sensitivity. Viewer exposure to the proposed project actions would be high - the proposed retaining walls would occupy the immediate highway foreground, dominating the view within their respective roadway segments.

In addition, based on computer-generated viewshed mapping, the project would potentially be visible from small portions of Fremont Older Open Space Preserve, Saratoga Gap Open Space Preserve, Sanborn County Park, and Castle Rock State Park. Park users are assumed to have a high sensitivity and concern for scenic values.

Overall, viewer response within this landscape unit is considered to be high, reflecting high viewer sensitivity and high viewer exposure.

Landscape Unit 2: Santa Clara Valley

Project Visibility from the Valley Floor

As reflected in the Santa Clara County General Plan, the County has historically identified views of the valley's surrounding mountain slopes as seen from the valley floor as a scenic resource of importance. Although oriented primarily toward design review of new residential development, the County's viewshed protection policies also make reference to retaining walls, grading, and the preservation of vegetation and establish the County's concern with protection of hillside development visible from the valley floor. To develop these policies, a county-wide GIS viewshed mapping analysis was conducted to map hillside areas according to levels of visibility from the valley floor, with the emphasis of viewshed protection policies and ordinances on "primary viewshed" areas, defined as those areas of the hillsides most visible to points on the valley floor. The viewshed protection ordinance exempts sites outside of the "primary viewshed" based on the GIS visibility analysis. Mapping provided by the County Planning Department revealed that the three proposed project locations would be outside the primary viewshed mapped areas of the GIS study (Figure 2.2) and by this criterion, exempt from these policies and ordinances. While the state is not subject to the jurisdiction of local ordinances, the Department attempts to abide by these policies and ordinances wherever feasible.

Additional GIS visibility mapping, projected from the proposed project locations themselves and extending to background distance (5 miles), was also conducted. This mapping indicated very limited potential visibility, based on topography, of the three locations from the valley. Field observations from locations on the valley floor with potential visibility as indicated by that GIS mapping indicated that none of the proposed project activities would be visible, due to screening of forest canopies near the project sites, as well as substantial foreground screening of buildings and trees from all potentially exposed valley floor locations. In general, neither SR 9 nor the project sites are visible from points on Saratoga Avenue and in downtown Saratoga for the same reasons.

Key Viewpoints

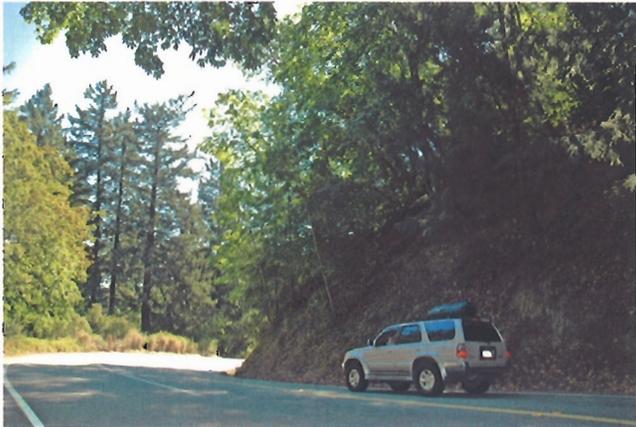
The following Key Viewpoints, all located within Landscape Unit 1, depict the three proposed locations of project activities. These viewpoints are the basis of the simulations for the project. Existing visual quality and viewer response are summarized for the Key Viewpoints below. Viewer response is characterized in terms of its two components, viewer sensitivity and viewer exposure. (A more detailed description of the FHWA visual impact assessment methodology can be found in the State Route 9 Safety Improvement Project, Visual Impact Assessment, April 2009.)

Location 1

Key Viewpoints 1 and 2 (Location 1): Views from the Road

Key Viewpoint 1 represents the view of motorists at Location 1 P.M. (2.5 – 2.7). Visual quality of this viewpoint is high; vividness is moderately high, but lacking in long or panoramic views; intactness and unity of the essentially undisturbed natural setting are both high. Viewer sensitivity is considered high due to the road’s scenic highway status and the recreational orientation of most viewers. Visual exposure to the project site, which adjoins the edge of roadway, is high.

Figure 2.3c: Key Viewpoints 1 and 2 (Location 1): Views from the Road



Key Viewpoint 1: View near P.M.2.5, Looking East (Northbound) Toward Proposed Retaining Wall

Location 1



Key Viewpoint 2: View near P.M.2.6, Looking West (Southbound) Toward Proposed Retaining Wall

Location 1

Views to the Road - Views of the proposed Location 1 retaining wall from homes downhill along Redwood Gulch Road and Stevens Canyon Road are virtually nonexistent due to intervening forest and steep terrain that screen the site. Potential off-site views from the valley floor are also nonexistent due to screening by a large grove of tall redwood trees downhill from the project site.

Computer viewshed mapping conducted for this study indicated that, portions of hiking trails within Fremont Older Open Space could fall within the potential viewshed of Location 1 at a distance of roughly 2.4 miles. Project activities would not be visible from

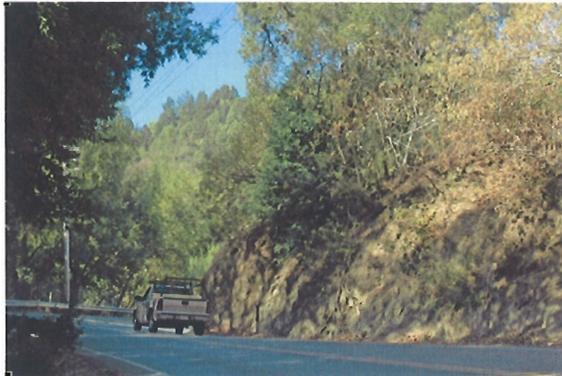
any other publicly accessible trails or other facilities within the other public parks and open spaces in the area. Visual Quality and Viewer Sensitivity are High while Viewer Exposure is Low.

Location 2

Figure 2.3d: Key Viewpoints 3 and 4 (Location 2): Views from the Road



Key Viewpoint 3: View near P.M.5.8,
Looking East (Northbound) Toward
Proposed Retaining Wall
(Adjacent residences to left of road)
Location 2



Key Viewpoint 4: View near P.M 5.9,
Looking West (Southbound)
Toward Proposed Retaining Wall
(Adjacent residences to right of road)
Location 2

Key Viewpoints 3 and 4 represent the views of motorists at Location 2 (P.M. 5.9 – 6.2) east of Pierce Road. Visual quality of this viewpoint is moderately high; vividness of the forest landscape is moderately high, but lacking in long or panoramic views; intactness is moderately high, with some evidence of adjoining residential development; unity of views of the largely undisturbed wooded hillsides is moderately high. Viewer sensitivity is considered high due to the road’s scenic highway status and the recreational orientation of most highway viewers. Visual exposure of motorists to the project site, which adjoins the edge of roadway, is high.

Views to the road at Location 2 would include views from four adjacent residences located directly above the highway to the north of the proposed wall. The driveway/access to these homes adjoins the proposed project right of way. Existing views of the highway from the residences are almost nonexistent, due to their setbacks from the road and their elevated position. However, limited views from the access drive are present; and several mature oak trees and other vegetation between the drive and highway currently screen the residences, providing visual enclosure, privacy, and shade, and could

potentially be affected by the project. As stated above, visual quality in this location is moderately high. Viewer sensitivity of adjacent residents is considered high; their visual exposure to project effects on trees and vegetation on their property would be high.

Despite its proximity, the project would not be visible from Mountain Winery, which sits above Location 2 on the same slope to the northwest. Views of the project would be blocked by intervening terrain.

Location 3

Figure 2.3e: Key Viewpoints 5 and 6 (Location 3): Views from the Road



View from the Road



View to the Road



View of Local Street



View of Local Street

Key Viewpoints 5 and 6 represent the view of motorists at Location 3 (P.M. 6.7 – 7.0) adjacent to Hakone Garden. Visual quality of this viewpoint is moderately high. Vividness of tall redwoods and tall riparian forest is moderately high; intactness is impaired by prominent existing cable lines in the roadway foreground, and some visible residences in the vicinity; but unity of the overall forest-dominated scene remains high. Both viewer sensitivity and exposure are high.

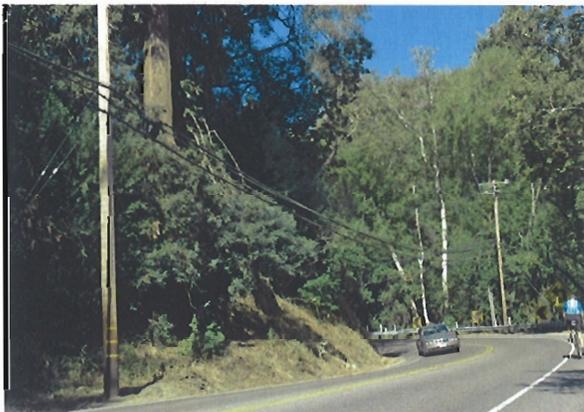
Hakone Gardens is a private nonprofit park open to the public, which consists of authentic Japanese traditional architecture, associated gardens, and a hiking and nature trail located between the main building and SR 9 a short distance south of the proposed wall at Location 3. The garden entrance and nature trail directly overlook Location 3. However, these are both sited high above the roadway, and intervening trees and terrain visually isolate the garden from the highway and would block visibility of the project for the same reasons. The removal of the canopies of tall redwood trees adjoining the road at

Location 3 could potentially be visible from locations within the garden and on the trail. Vividness, intactness and unity within Hakone Garden are all high. Viewer sensitivity is high. However, viewer exposure to the project site is actually relatively low.

Figure 2.3f: Key Viewpoints 5 and 6 (Location 3): Views from the Road



Key Viewpoint 5: View near P.M. 6.6, Looking east (northbound) toward proposed retaining wall (Hakone Gardens to left of road) Location 3



Key Viewpoint 6: View near P.M. 6.7, Looking west (southbound) toward proposed retaining wall (Hakone Gardens to left of road) Location 3

A number of residences are located within foreground distance of Location 3 north of the highway. However, views of the project site from these locations are almost completely screened by the tall, dense riparian forest canopy of Saratoga Creek north of the highway. Visual quality of the residential viewshed is moderately high, with vividness limited only by a general absence of long views, and intactness compromised only by the residential development itself, which is highly evident from within the residential neighborhoods, but almost unseen from the highway.

2.1.3.3. Environmental Consequences

Impacts in this study were identified according to guidelines of the FHWA Visual Impact Assessment methodology, and by criteria of Appendix G of the CEQA Guidelines (FHWA, 1988).

Federal Highway Administration Methodology

Under the FHWA methodology, substantial declines in visual quality of the setting as identified by the average overall decline in the attributes vividness, intactness, and unity, in combination with high levels of anticipated viewer response (viewer sensitivity and exposure), are likely to result in substantial adverse impacts. In accordance with Department guidance, impacts identified in this way were evaluated according to the following:

Low (L) - Minor adverse change to the existing visual resource (i.e., decline in visual quality), with low viewer response to change in the visual environment. May or may not require mitigation;

Moderate (M) - Moderate adverse change to the visual resource with moderate viewer response. Impact can be mitigated within five years using conventional practices;

Moderately High (MH) - Moderate adverse visual resource change with high viewer response or high adverse visual resource change with moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required will generally take longer than five years to mitigate; and

High (H) - A high level of adverse change to the resource and a high level of viewer response to visual change. Architectural design and landscape treatment may not fully mitigate the impacts. An alternative project design may be required to avoid highly adverse impacts.

California Environmental Quality Act

Appendix G of the CEQA Guidelines defines four criteria to evaluate the significance of visual impacts of a project:

- Would the project have a substantial adverse effect on a scenic vista?;
- Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?;
- Would the project substantially degrade the existing visual character or quality of the site and its surroundings?; and
- Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

2.1.3.4. Impacts

Visually significant features of the project could include:

Upslope soil-nail retaining walls of up to 40 feet in height, and associated tree/vegetation removal required for roadway widening. These walls are designated in plan views of Figures 2.4, 2.7, and 2.10 as Locations 1, 2, and 3. They would have an overall combined length of approximately 1,225 feet (0.23 mile).

In addition, shoulder widening, roadway re-alignment and shoulder metal beam guard rails in some locations are proposed but are not anticipated to have substantial visual effects.

Potential project impact types include decline in visual quality due to:

- Visual intrusion/incompatibility of upslope retaining walls and concrete barrier as seen in views from the road;
- Visual intrusion/incompatibility of upslope retaining walls as seen in views to the road, including views from residences, parks or the valley floor;
- Tree and vegetation removal due to widening and wall construction; and
- Visible impacts to the historic integrity of eligible state or national historic properties.

Visual impacts from project-specific and cumulative impacts of proposed widening of the travel way were determined to be negligible and insignificant.

LOCATION 1

Views from the Road: Key Viewpoints 1 and 2

Key Viewpoints 1 and 2 represent potential project impacts from shoulder widening, wall construction, and vegetation removal as seen by motorists at Location 1, P.M. 2.5 – 2.62, northbound (toward valley) and southbound (toward summit and the County line), respectively.

Figure 2.4 depicts an aerial view of Project Location 1, showing proposed road and wall locations, and photo locations of Viewpoints 1 and 2. Figures 2.5 and 2.6 depict existing and simulated views from the locations indicated in Figure 2.4. Simulations are shown depicting conditions after project construction and after 10 - 15 years.

As depicted in the simulations, anticipated project impacts from these viewpoints would include strong contrast with the existing landscape character and a strong decline in vividness, intactness, and unity due to highly prominent visual intrusion of the new retaining wall and accompanying vegetation removal. Grading, grubbing, and tree removal would be limited to no more than five feet of the edge of the retaining wall. Nevertheless, roadway re-alignment and wall construction would require removal of a number of mature maple, madrone, and redwood trees, some exceeding 60 feet in height. The resulting loss of tree canopy would represent a moderately strong decline in vividness in this road segment. The wall, with a height of up to 40 feet, would introduce a visually dominant feature of incompatible visual character. The proposed wall would be 290 feet in length. Because views in this segment of SR 9 are highly enclosed by tree canopy on both sides of the road, that visual enclosure and absence of distant views tends to restrict viewers' attention to the immediate roadway foreground, and would thus tend to emphasize the prominence and scale of the retaining wall, increasing awareness of its artificial character in relation to the existing natural setting. These effects would represent a strong decline in intactness and unity of views in these locations.

In the context of high viewer sensitivity and high visual exposure, this high degree of decline in overall visual quality would represent a substantial adverse impact.

Figure 2.5a shows the existing northbound view at Location 1. Figure 2.5b shows a northbound simulation of Location 1 after construction and Figure 2.5c shows a simulation 10-15 years after construction. Figure 2.6a shows the existing southbound view at Location 1. Figure 2.6b shows a southbound simulation of Location 1 after construction and Figure 2.6c shows a simulation 10-15 years after construction.

As described below in Section 2.1.3.5 - Avoidance, Minimization, and/or Mitigation Measures, under recommended Mitigation Measure VM-2, the retaining wall would incorporate context-sensitive color and texture treatment to reduce potential impacts. A sculpted rock wall texture treatment is depicted in the visual simulations. There are a variety of texture treatments available. The final selection of texture will be made in consultation with the public and local agencies. Whatever the selected texture, the intent of the treatment is to reduce overall wall contrast, incompatibility of character, and resulting decline in visual quality to the extent feasible. Dark color stain would reduce brightness, color contrast, and reflectivity; surface texture treatments would add visual variety and interest, reduce reflectivity, and help blend with the visual background. At many times of the year, shadow would help to further reduce contrast and prominence of the wall.

The proposed wall treatments would reduce the potential overall contrast of the wall and enhance compatibility of landscape character. However, due to the wall length, height, and location at the immediate road shoulder, the overall effect would be of a visually dominant, artificial, conspicuous structure. With implementation of the measures described in section 2.1.3.5, the potential impacts would be reduced, but would remain substantially adverse.

Views to the Road

Views in the near vicinity of Location 1 from homes downhill along Redwood Gulch Road and Stevens Canyon Road are virtually nonexistent due to intervening forest and steep terrain that screen the site. Potential off-site views from the valley floor are also nonexistent due to screening by the large grove of tall redwood trees downhill from the project site. Potential valley floor views of the wall without tree screening would be limited to views over five miles away, which would not be visually evident.

As indicated by GIS mapping, portions of hiking trails within Fremont Older Open Space fall within the potential viewshed of Location 1 at a distance of roughly 2.4 miles. With recommended wall treatment, particularly dark colored staining, views of the wall at that distance would be unnoticed by the casual observer. Project activities would not be visible from any other publicly accessible trails or other facilities within the other public parks and open spaces in the area. Potential impacts to off-site viewers would thus be minimal.



Figure 2.5a: Location 1 Northbound – Existing View – Key Viewpoint 1



Figure 2.5b: Location 1 Northbound Simulation – Key Viewpoint 1



Figure 2.5c: Location 1 Northbound Simulation – 10 to 15 Year Scenario – Key Viewpoint 1



Figure 2.6a: Location 1 Southbound Existing View – Key Viewpoint 2



Figure 2.6b: Location 1 Southbound Simulation with Project – Key Viewpoint 2



Figure 2.6c: Location 1 Southbound Simulation with Project – 10 to 15 Year Scenario – Key Viewpoint 2

LOCATION 2

Views from the Road: Key Viewpoints 3 and 4

Key Viewpoints 3 and 4 represent potential project impacts from shoulder widening, new metal beam guard rail, wall construction and vegetation removal at Location 2, P.M. 5.9 to 6.2, northbound (toward valley) and southbound (toward summit and the County line), respectively.

Figure 2.7 depicts an aerial view of Location 2 showing the proposed road and wall locations, and photo locations of Figures 2.8 and 2.9. Figures 2.8 and 2.9 depict existing and simulated views from the locations indicated in Figure 2.7. Simulations are shown depicting conditions after project construction and after 10 - 15 years.

As depicted in Figures 2.8 and 2.9, anticipated project impacts from these viewpoints would include strong contrast with the existing landscape character and a strong decline in overall visual quality due to prominent visual intrusion of the proposed new retaining wall and accompanying vegetation removal. Grading, grubbing, and tree removal would be limited to no more than 5 feet from the edge of the retaining wall. Nevertheless, roadway re-alignment and wall construction would require removal of several mature live oak trees, along with other smaller native and non-native landscaping that currently enclose and screen an adjacent driveway on the uphill side of the wall. The impacts of this tree removal on views to the road from residences are described below. Figures 2.8 and 2.9 depict the effect on views from the road.

The loss of tree canopy would represent a moderate decline in vividness in this road segment. The retaining wall, with a height of up to 25 feet, would introduce a visually dominant feature of incompatible visual character. The proposed wall would be approximately 722 feet in length. Foreground views of the forested hillside south of the road would remain and would help draw viewer attention away from the wall. However, the height and prominence of the wall at the road shoulder would compete strongly for the viewer's attention and remain dominant for the length of the wall. The removal of oak trees and other vegetation on the adjoining residential properties to the north of the road would also expose some of these homes to view, contributing to the reduction in unity and intactness. These effects would represent a strong decline in intactness and unity of views of motorists in these locations.

In the context of high viewer sensitivity and high visual exposure, this high degree of decline in overall visual quality would represent a substantial adverse impact.

The retaining wall would incorporate context-sensitive color and texture treatment to reduce potential impacts. A sculpted rock wall texture treatment is depicted in the visual simulations as proposed in Section 2.1.3.5, Avoidance, Minimization and Mitigation Measures, under recommended Mitigation Measure VM2. There are a variety of texture treatments available. The final selection of texture will be made in consultation with the public and local agencies. Whatever the selected texture, the intent of the treatment is to reduce overall wall contrast, incompatibility of character and resulting decline in visual quality to the extent feasible. Dark color stain would reduce brightness, color contrast and reflectivity; surface texture treatments would add visual variety and interest, reduce

reflectivity, and help blend with the visual background. At many times of the year, shadow would help to further reduce contrast and prominence of the wall.

The proposed wall treatments would reduce the potential overall contrast of the wall and enhance compatibility of landscape character. However, due to the wall length, height, and location at the immediate road shoulder, the overall effect would be of a visually dominant, artificial, conspicuous structure. With implementation of the measures described in section 2.1.3.5, the potential impacts would be reduced, but would remain substantially adverse.

Views to the Road

Four residences immediately adjoin the roadway to the north of Location 2. The driveway access to these homes parallels the highway at the top of the slope of the adjoining slope at the shoulder. A total number of 18 ornamental and native trees including the mature Oak trees depicted in the photos and shrubs would be removed to accommodate proposed road widening and curve modification.

Although residents would experience increased exposure of views to the roadway, these would be limited by their elevated and setback position above the road. Views from the residences would look over the highway, to the facing forested hillsides. Thus, although the visual character would change considerably, from a highly enclosed one dominated by oak canopies, to an open one dominated by views of wooded hillsides, the overall decline in visual quality would be modest, since the resulting views would be characterized by high remaining vividness, intactness, and unity.

In the context of high viewer sensitivity and high visual exposure, this would represent a moderate level of adverse change and a less-than-significant adverse impact. Nevertheless, to minimize change to the existing visual setting of the affected residences in the long term, mitigation measures discussed below are recommended.



Figure 2.7: Aerial View - Location 2



Figure 2.8a: Location 2 Northbound Existing View – Key Viewpoint 3



Figure 2.8b: Location 2 Northbound Simulation with Project - Key Viewpoint 3



Figure 2.8c: Location 2 Northbound Simulation With Project – 10 to 15 Year Scenario – Key Viewpoint 3



Figure 2.9a: Location 2 Southbound Existing View – Key Viewpoint 4

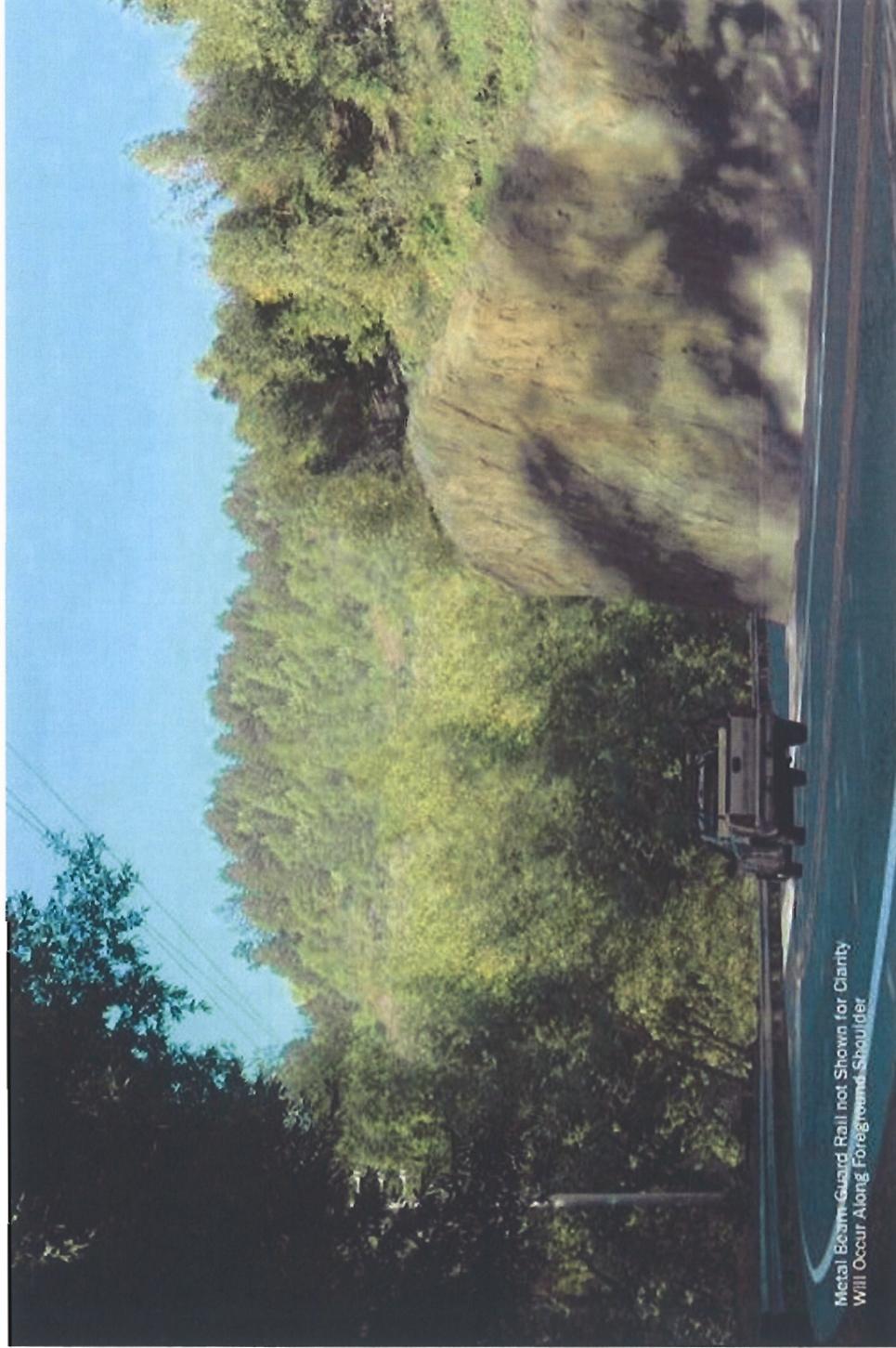


Figure 2.9b: Location 2 Southbound Simulation with Project – Key Viewpoint 4



Figure 2.9c: Location 2 Southbound Simulation With Project – 10 to 15 Year Scenario – Key Viewpoint 4

LOCATION 3

Views from the Road: Key Viewpoints 5 and 6

Key Viewpoints 5 and 6 represent potential project impacts from shoulder widening, wall construction and vegetation removal at Location 3, P.M. 6.7 – 7.0, northbound (toward valley) and southbound (toward summit and the County line), respectively.

Figure 2.10 depicts an aerial view of Location 3 showing proposed road and wall locations, and photo locations of Figures 2.11 and 2.12. Figures 2.11 and 2.12 depict existing and simulated views from the locations indicated in Figure 11. Simulations are shown depicting conditions after project construction and after 10 - 15 years.

As depicted in Figures 2.11 and 2.12, anticipated project impacts from these viewpoints would include strong contrast with the existing landscape character and a strong decline in overall visual quality due to prominent visual intrusion of the proposed new retaining wall and accompanying vegetation removal. Grading, grubbing, and tree removal would be limited to within five feet of the edge of the retaining wall. Even so, roadway realignment and wall construction would require removal of several very tall, old redwood trees, along with other vegetation. The impacts of this tree removal on views to the road from Hakone Gardens are described below. Figures 2.11 and 2.12 depict the effect on views from the road.

Alteration of existing landscape character and decline in visual quality would be high. Views in this road segment are highly enclosed by uphill slopes on one side, and tall enclosing riparian forest on the other. Views are thus confined to the immediate road foreground, and attention is drawn to foreground elements such as the proposed wall. The height and prominence of the wall at the road shoulder would tend to dominate viewers' attention. Vividness would decline strongly from the removal of the prominent redwood trees and their canopies, which currently extend partially over the roadway, creating enclosure, shade, and a dominant visual presence. Intactness would decline to a moderately high degree due to the loss of the large trees and of the contrasting, artificial character of the retaining wall, which would be up to 30 feet in height. The proposed wall would be approximately 213 feet in length. Unity would also decline to a moderately high degree due to the contrast in character between the highly intact natural forest setting and the dominant, artificial character of the wall.

In the context of high viewer sensitivity and high visual exposure, this high degree of decline in overall visual quality would represent a substantial adverse impact. The retaining wall would incorporate context-sensitive color and texture treatment to reduce potential impacts. A sculpted rock wall texture treatment is depicted in the visual simulations as proposed in Section 2.1.3.5, Avoidance, Minimization and Mitigation Measures, under recommended Mitigation Measure VM2. There are a variety of texture treatments available. The final selection of texture will be made in consultation with the public and local agencies. Whatever the selected texture, the intent of the treatment is to reduce overall wall contrast, incompatibility of character and resulting decline in visual quality to the extent feasible. Dark color stain would reduce brightness, color contrast, and reflectivity; surface texture treatments would add visual variety and interest, reduce reflectivity, and help blend with the visual background. Under most conditions, shadow would help to further reduce contrast and prominence of the wall.

The proposed wall treatments would reduce the potential overall contrast of the wall and enhance compatibility of landscape character. However, due to the wall length, height, and location at the immediate road shoulder, the overall effect would be of a visually dominant, artificial, conspicuous structure and the impact on scenic quality in this road segment would remain substantially adverse.

With implementation of the measures described in section 2.1.3.5, the potential impacts would be reduced, but would remain substantially adverse.

Views to the Road

The proposed retaining wall at Location 3 would encroach into the property of Hakone Gardens, owned by a private non-profit foundation and open to the public (See Appendix B, Section 4(f) De Minimis Finding). The wall would be located roughly 300 feet from the garden's main building which, however, is situated a considerable height (roughly 130 feet) above the roadway atop a steep hill overlooking the highway. Currently, views to the highway from the main building and vicinity are completely screened both by dense, very tall tree cover, and intervening steep terrain. Despite the proximity of the highway, awareness of the highway from within the garden is thus almost nil. A nature trail belonging to the gardens is currently sited to the north of the main building, on the wooded slopes between the building and the highway. Views to the highway from the trail are currently almost nonexistent due both to dense tree screening and to the steep terrain.

The proposed wall construction and curve re-alignment would result in a cut slope into portions of the Hakone Gardens property and the associated removal of many of the very tall redwood and other trees that currently enclose views northward from the garden's main building and nature trail, in the area between (north of) the Gardens' access road and the highway.

Views from the main building, parking area, and primary visitor areas of the garden would remain screened from views of the highway and new wall by dense forest and terrain. It is likely that views northward from the main building would become more open, though they would remain filtered by tall trees that would remain on slopes south (uphill) of the park access road and the proposed retaining wall.

Anticipated tree removal would open the currently enclosed views of the Gardens' nature trail, revealing views northward from the trail. These new views would primarily include the tall and scenic riparian canopy of Saratoga Creek. Trees and forest would predominate in these views, and views of the highway would remain largely obscured by the intervening steep slopes. Views from the nature trail would remain drawn to the views of the riparian woodland, beyond the highway. The trail would be less enclosed and isolated, but would also benefit from improved views to the creek corridor to the north.

A large number of residences are located within foreground distance (under ¼ mile) of Location 3 to the north of the highway. The nearest home is less than 200 feet away. Of these residences, however, virtually none would have open views of the retaining wall due to the intervening tall, dense riparian tree canopy of Saratoga Creek that filters or

screens such views. The overall level of change would thus be low due to the screening effects of vegetation, and impacts would be less than significant.

In the context of high viewer sensitivity but low visual exposure, project effects would represent a low level of adverse change and a less-than-significant adverse impact, both to Hakone Gardens and to nearby residents.

In the context of high viewer sensitivity but low visual exposure, project effects would represent a low level of adverse change and a less-than-significant adverse impact, both to Hakone Gardens and to nearby residents. Nevertheless, to minimize change to the existing visual setting of the affected residences as seen from nearby portions of the roadway, the measures discussed in Section 2.2.6, Avoidance, Minimization, and/or Mitigation Measures will be implemented.

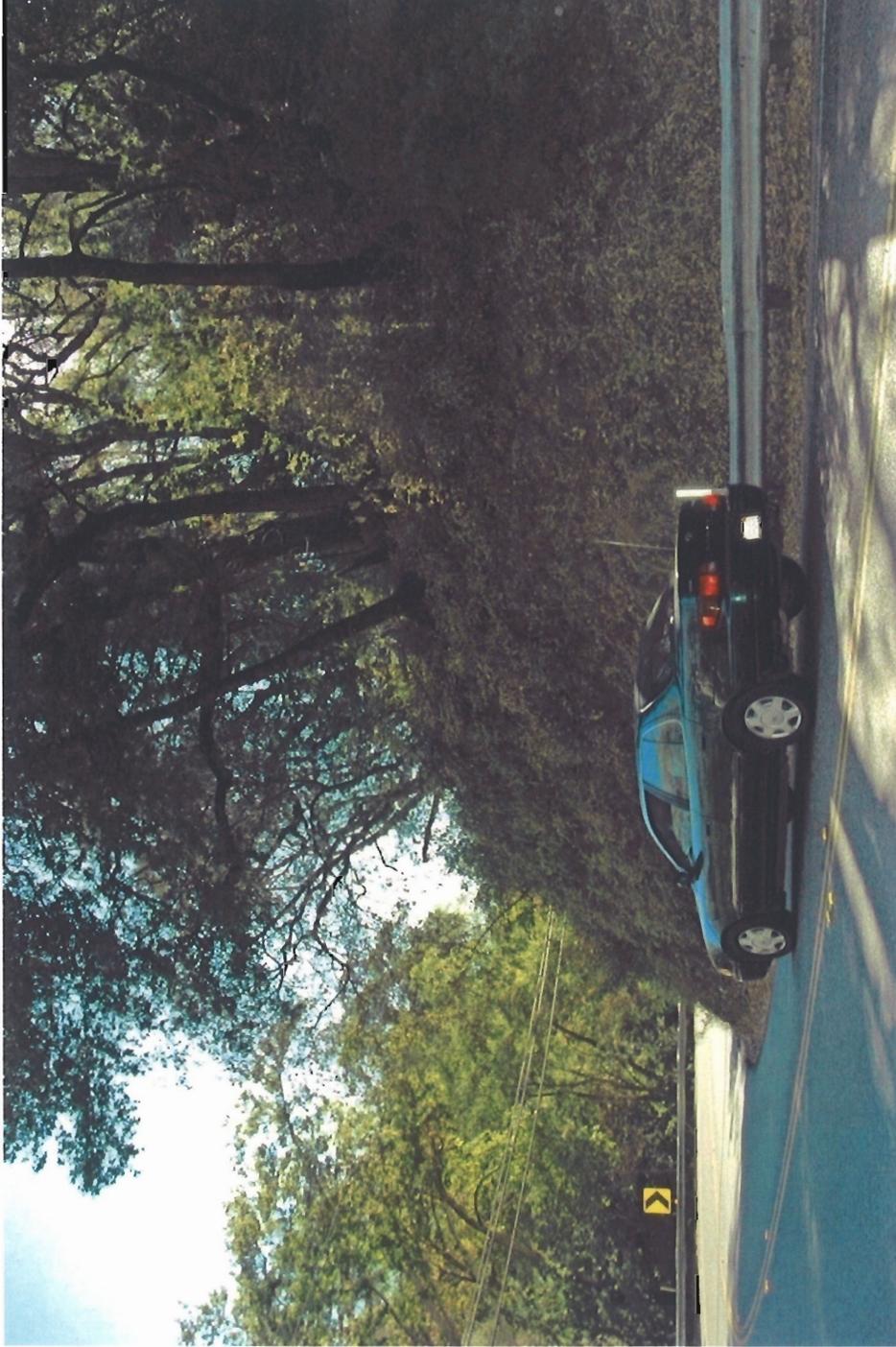


Figure 2.11a: Location 3 Northbound Existing View – Key Viewpoint 5



Figure 2.11b: Location 3 Northbound Simulation With Project – Key Viewpoint 5



Figure 2.11c: Location 3 Northbound Simulation With Project – 10 to 15 YEAR Scenario – Key Viewpoint 5



Figure 2.12a: Location 3 Southbound Existing View – Key Viewpoint 6



Figure 2.12b: Location 3 Southbound Simulation With Project – Key Viewpoint 6

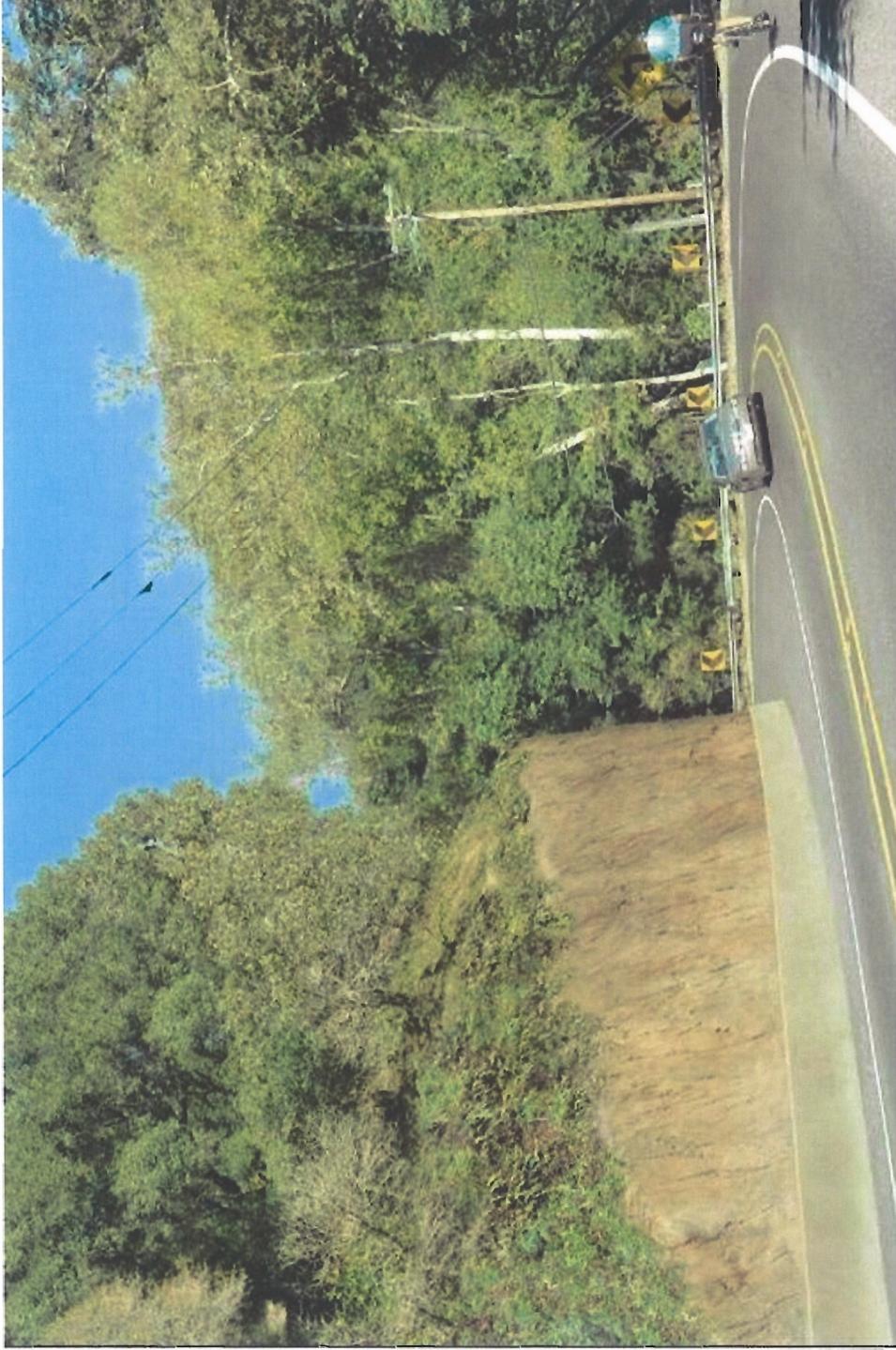


Figure 2.12c: Location 3 Southbound Simulation with Project – 10 to 15 Year Scenario – Key Viewpoint 6

Light and Glare Impacts

No substantial long-term light and glare impacts would occur as a result of the proposed project. Construction at night could result in glare impacts that interfere with safe navigation by motorists.

Construction Impacts

Construction staging within the scenic highway corridor, if visible from the highway, could have the potential to cause temporary visual impacts.

Scenic Highway Program

In 1979 SR 9 was officially designated as a State Scenic Highway from Blaney Plaza in the City of Saratoga to the County Line at Saratoga Gap.

The enabling legislation establishing the Scenic Highway Program states that scenic highways “shall take into consideration the concept of a ‘complete highway,’ which is a highway, which incorporates not only safety, utility, and economy, but also beauty . . . In the development of official scenic highways, the department shall give special attention both to the impact of the highway on the landscape, and to the highway’s visual appearance (Streets and Highways Code (Division 1, Chapter 2, Article 2.5, Section 261).”

Caltrans’ Scenic Highway Guidelines define a specific process and criteria to determine eligibility of a highway for scenic status. Among these, not more than one-quarter of the proposed scenic highway may be impacted by visual intrusions. Visual intrusions may be natural or constructed elements, viewed from the highway, that adversely affect the scenic quality of a corridor. Intrusions are classified as minor, moderate, or major, but in any case not more than one quarter of the length should be impacted.

Existing visual intrusions on SR 9 do not approach the threshold of one-quarter of the designated scenic route, and would not with the proposed project. The project would thus remain consistent with requirements of the Scenic Highway Program.

Consistency with Scenic/Visual Resource Plans and Policies

The Santa Clara County General Plan sets forth scenic/visual resource goals and policies intended to preserve, enhance, restore and respect scenic vistas and visually important landscapes. As noted above, the County has historically identified views of the valley’s surrounding mountain slopes as seen from the valley floor as a scenic resource of importance. Although oriented primarily toward design review of new residential development, the County’s viewshed protection policies also make reference to retaining walls, grading, and the preservation of vegetation and establish the County’s concern with protection of hillside development visible from the valley floor. The viewshed protection ordinance exempts sites outside of the “primary viewshed” based on the GIS visibility analysis. Mapping provided by the County Planning Department revealed that the three proposed project locations would be outside the primary viewshed mapped areas of the GIS study (Figure 2.2) and by this criterion, exempt from these policies and ordinances.

While the state is not subject to the jurisdiction of local ordinances, the Department attempts to abide by these policies and ordinances wherever feasible. The proposed project, with the proposed mitigation measures, would be generally consistent with relevant scenic/visual resources policies of the County.

2.1.3.5. Avoidance, Minimization, and/or Mitigation Measures

Avoidance, minimization and mitigation measures would be implemented in accordance with the Department's standards and recommendations for visual impacts, as suggested by the Department's Highway Design Manual. The following Visual Mitigation (VM) Measures would be implemented at all three project locations:

VM-1: Tree and Vegetation Removal Measures

Minimization or avoidance of tree/vegetation removal due to construction to the greatest possible extent:

- Minimization of existing tree and shrub removal to the greatest possible extent. The limit of work shall be kept to the minimum possible footprint, not to exceed 5 feet from the edge of retaining wall (please see Figures 2.13a and 2.13b);
- Clearing and grubbing is to occur no farther than five feet from the edge of the retaining wall;
- Existing vegetation outside of clearing and grubbing limits shall be protected from the contractor's operations, equipment, and materials storage;
- Tree trimming by the contractor shall be limited to that required in order to provide a clear work area;
- High visibility temporary fencing, if feasible, shall be placed around the area where significant trees or other desirable vegetation are to be protected prior to the commencement of wall construction;
- All trees to be removed shall be marked in the field by the Contractor and approved by the Resident Engineer prior to removal; and
- As far as practicable, design exceptions shall be implemented to avoid removal of significant existing vegetation.

Highway planting:

- Replacement of trees and shrubs at Location 2 shall be in place, where feasible;
- Tree replacement planting may be implemented in other locations if appropriate to mitigate for major loss of tree canopy, as determined by the project landscape architect;
- Required mitigation planting shall be implemented per Chapter 29 (Highway Planting) of the Caltrans Project Development Procedures Manual and Chapter 900 (Landscape Architecture) of the Caltrans Highway Design Manual;
- All disturbed areas of native vegetation shall be replaced with similar locally-native vegetation at a minimum replacement ratio to be determined by Project Biologists; and
- Required mitigation planting shall be funded through the parent roadway contract, programmed and completed as a separate contract within two years of completion of all roadwork.

VM-2: Retaining Wall Measures

- Use appropriate context-sensitive wall texture and color treatments to minimize contrast with the existing natural and/or historic setting. All walls would be treated with color and texture to reduce reflectivity of retaining walls visible from the valley floor viewshed;
- Employ integral coloring in bottom barrier portion of upslope retaining walls to reduce overall color contrast of the walls; and
- Wall and barrier texture treatments shall be coordinated and carry consistent themes throughout the corridor.

VM-3 Light and Glare Measures

- Construction activities shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.

VM-4 Construction Impact Measures

- Unsightly material and equipment storage and staging shall not be visible within the foreground of the highway corridor to the extent feasible. Where such siting is unavoidable, material and equipment shall be visually screened where feasible to minimize visibility from the roadway and nearby sensitive off-road receptors;
- Construction, staging, and storage areas shall be screened where feasible by visually opaque screening wherever they will be exposed to public view for extended periods of time;
- Construction activities shall be phased to minimize the duration of disturbance to the shortest feasible time;
- All areas disturbed by construction, staging and storage shall be re-vegetated when feasible; and
- Construction activities adjacent to residences shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.

Figure 2.13a: Recommended Mitigation Measure: Limit grubbing and tree removal to no more than five feet from edge of retaining wall.

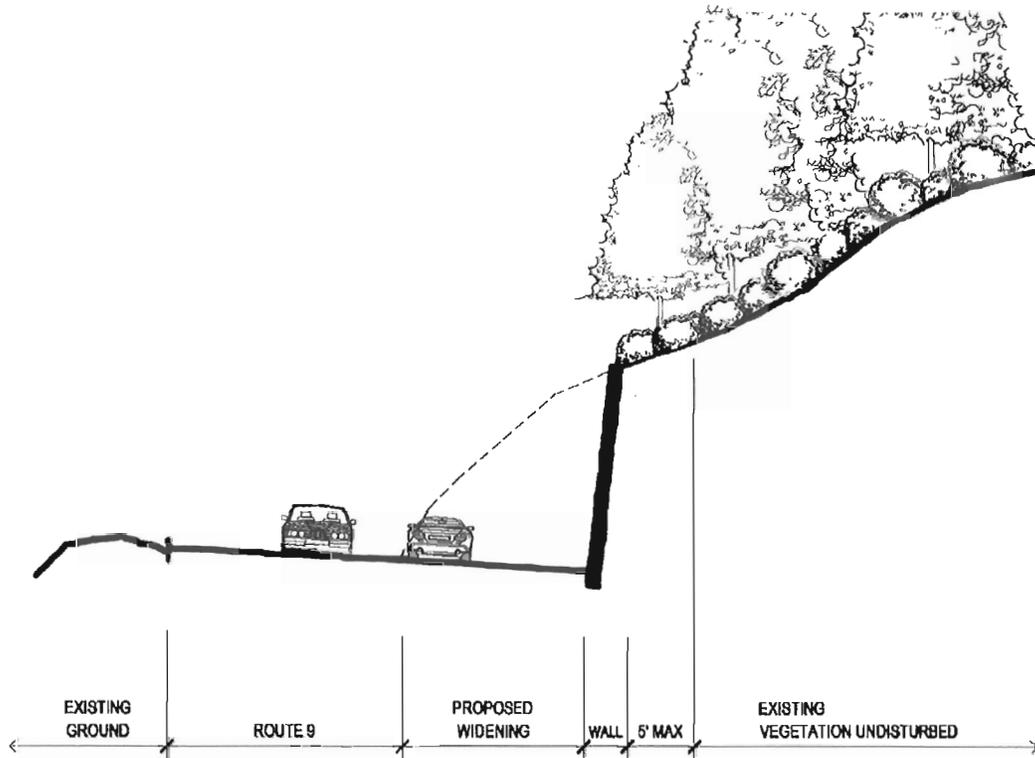
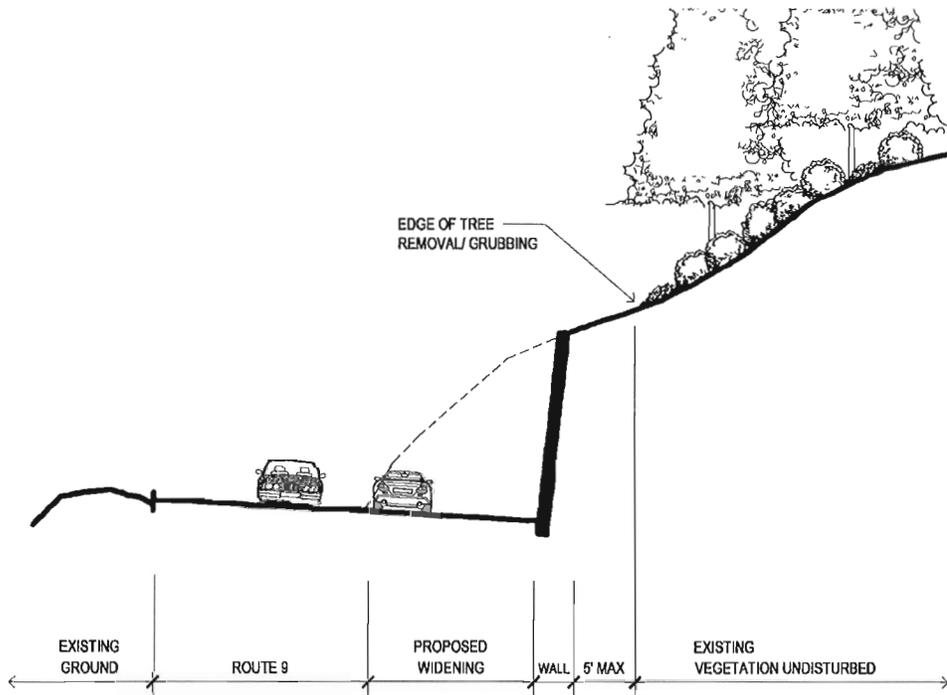


Figure 2.13b: Typical Retaining Wall/ Roadway Cross Section: 10-15 Years Scenario

2.1.4. Cultural Resources

2.1.4.1. Regulatory Setting

“Cultural resources” as used in this document refers to all historical and archaeological resources, regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act of 1966, as amended, (NHPA) 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 NHPA 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 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, FHWA, State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the Advisory Council’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. Some of FHWA’s responsibilities have been assigned to the Department under the PA.

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 regarding Section 4(f).

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria.

2.1.4.2. Affected Environment

Caltrans Office of Cultural Resources completed a *Historic Property Survey Report* (HPSR), an *Archaeological Survey Report* (ASR) and a *Historic Resource Evaluation Report* (HRER) in June 2009 for this project. A Finding of Effect Report was completed on August 24, 2009.

The Department’s efforts to identify cultural resources were documented in the HPSR. A study area or Area of Potential Effects (APE) for the proposed project was defined and was based on the proposed project footprint and the total right-of-way width (existing and proposed). The archaeological APE encompasses all areas where project-related ground disturbance would occur, including the maximum right-of-way that would be acquired for roadway widening, fill, excavation, construction easements, staging areas, access routes and potential utility relocation. The architectural APE is comprised of the archeological APE, existing and proposed right of way, construction easements, and all entire parcels of the historic resource, whether or not the parcels are adjacent to construction. The architectural APE is set in this fashion in order to assess potential indirect effects to historic resources.

Archaeological Resources

The ASR indicated a previously recorded archaeological resource near location #2. This archaeological resource is noted as CA-SCL-368/H.

Caltrans archaeologists conducted a record search, completed field studies, and interviewed an informant from the Saratoga Historical Society and Museum. Native American consultation was completed in compliance with Section 106.

CA-SCL-368/H is then considered National Register of Historic Places eligible for the purpose of this undertaking, without conducting subsurface or surface testing, in accordance with the PA. The archaeological property will be protected from any adverse effect by the established plan for an Environmentally Sensitive Area (ESA). For CA-SCL-368/H, there will be no take of land for the project. Since the archaeological property within the undertaking's APE will be protected from any adverse effect by establishment of an Environmentally Sensitive Area (ESA), there will be no adverse effect.

Due to the general topography of the APE, including areas with steep slopes, there appears to be low potential for the proposed project to impact buried archaeological resources or for the discovery of new archaeological resources. If buried cultural materials are encountered during construction, it is the Department's policy to stop work in the area of discovery until a qualified archaeologist can evaluate the nature and significance of the finding.

Built/Architectural Resources

The HRER prepared for the project found that the project APE includes one property that is eligible for listing in the National Register of Historic Properties (NRHP). This location is Hakone Gardens.

The Hakone Gardens, a city owned property, was recorded and evaluated in a Historic Resources Evaluation Report (HRER) prepared by the Department in 2009. The period of significance for the property is 1917-1941, during which the three main gardens and all contributing buildings and structures were built. Hakone Gardens is a significant example of traditional Japanese landscape and transplanted to California during the late 19th and early 20th centuries. Hakone Gardens is eligible for the National Register of Historic Places. It is a significant example of traditional landscape that was imported into the United States during the Meiji Period.

The Department submitted a Finding of Effect Report to the SHPO on August 24, 2009. Caltrans Cultural Resource staff evaluated the potential effects of the Highway 9 Safety Improvement Project on the two historic properties. For Hakone Gardens, there will be a .13-acre take of land, but since no contributing features will be taken, it is not considered an adverse effect. No other contributing historic features will be affected.

2.1.4.3. Avoidance, Minimization and/or Mitigation Measures

Although the above ground feature at site CA-SCL-368/H is outside the Area of Direct Impact, an Environmentally Sensitive Area (ESA) will be established and delineated

using ESA fencing. A metal beam guardrail (MBGR) will be installed to protect the feature.

For CA-SCL-368/H, there will be no mitigation required because of a No Adverse Effect conclusion.

There will be no adverse effect on the Hakone Gardens and therefore no mitigation is warranted.

2.2. PHYSICAL ENVIRONMENT

2.2.1. Water Quality And Storm Water Runoff

2.2.1.1. Regulatory Setting

Section 401 of the Clean Water Act requires water quality certification from the State Water Resource Control Board (SWRCB) or a Regional Water Quality Control Board (RWQCB) when the project requires a Federal permit. Typically this means a Clean Water Act Section 404 permit to discharge dredge or fill into a water of the United States, or a permit from the Coast Guard to construct a bridge or causeway over a navigable water of the United States under the Rivers and Harbors Act.

Along with Clean Water Act Section 401, Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the NPDES program to the SWRCB and the nine RWQCBs. To ensure compliance with Section 402, the SWRCB has developed and issued the Department an NPDES Statewide Storm Water Permit to regulate storm water and non-storm water discharges from Department' right-of-way, properties and facilities. This same permit also allows storm water and non-storm water discharges into waters of the State pursuant to the Porter-Cologne Water Quality Act.

Storm water discharges from the Department's construction activities disturbing one acre or more of soil are permitted under the Department's Statewide Storm Water NPDES permit. These discharges must also comply with the substantive provisions of the SWRCB's Statewide General Construction Permit. Non-Departmental construction projects (encroachments) are permitted and regulated by the SWRCB's Statewide General Construction Permit. All construction projects exceeding one acre or more of disturbed soil require a Storm Water Pollution Prevention Plan (SWPPP) to be prepared and implemented during construction. The SWPPP, which identifies construction activities that may cause discharges of pollutants or waste into waters of the United States or waters of the State, as well as measures to control these pollutants, is prepared by the construction contractor and is subject to Department review and approval.

The San Francisco RWQCB, as part of the Bay Area NPDES stormwater permits, requires stormwater programs to address the increases in runoff rate and volume from new projects where those increases could cause increased erosion of receiving streams. Starting in 2002, Phase 1 municipal stormwater permits in the San Francisco Bay Area contained requirements to develop and implement hydromodification management plans (HMPs) and to implement associated management measures. In 2008 Caltrans was

informed that projects requiring Clean Water Act Section 401 Certification from the San Francisco RWQCB will have to comply with the hydromodification requirements in municipal stormwater permits.

The NPDES permit covering the project area is that of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), which is comprised of the thirteen cities of Santa Clara Valley, Santa Clara County, and the Santa Clara Valley Water District (SCVWD), all of which are Co-Permittees. The RWQCB's Order 01-119 (October 2001) amended Provision C.3 of the SCVURPPP's reissued NPDES permit (Order 01-024, February 2001) to incorporate specific new development and re-development requirements, including the HMP requirements. On July 20, 2005, the RWQCB adopted key provisions of the SCVURPPP HMP Report into the SCVURPPP permit. The requirements apply to development projects that exceed certain thresholds of impervious surface area.

Provision C.3.f of the NPDES permit, Limitation on Increase of Peak Stormwater Runoff Discharge Rates, (in Attachment 1-1), describes the HMP requirements. Under Provision C.3.f, the Co-Permittees are required to develop an HMP to describe how they plan to manage increases in magnitude, volume, and duration of runoff from "Group 1" new development and significant re-development projects (projects that create one acre or more of impervious surface over the entire project site) in order to protect streams from increased potential for erosion or other adverse impacts.

In implementing the HMP, runoff controls must be designed so that post-project runoff shall not exceed estimated pre-project rates, durations, and volumes from the development site (Provision C.3.f.i). Runoff controls are not required for projects that discharge stormwater runoff where the potential for erosion, or other impacts to beneficial uses, is minimal. Such situations may include: discharges into creeks that are concrete-lined or significantly hardened (e.g. with riprap) downstream to their outfall in San Francisco Bay; underground storm drains discharging to the Bay; and construction of infill projects in highly developed watersheds, where the potential for single-project and/or cumulative impacts is minimal (Provision C.3.f.iii).

Provision C.3.f.vi.5 and C.3.vii of the permit allow hydromodification impacts to be addressed using strategies other than on-site runoff controls, or in combination with on-site runoff controls. These strategies may allow increases in flow rates, durations, and volumes from a development site, subject to the implementation of specified best management practices (BMPs) and land use planning practices that accommodate expected stream changes without harming beneficial uses (e.g. increases in cross-sectional area of a stream channel). BMPs may also be regional projects that mitigate the impacts of more than one new development or re-development project.

Finally, the SWRCB and the RWQCBs have jurisdiction to enforce the Porter-Cologne Act to protect groundwater quality. Groundwater is not regulated by Federal law, but is regulated under the state's Porter-Cologne Act. Some projects may involve placement or replacement of on-site treatment systems (OWTS) such as leach fields or septic systems or propose implementation of infiltration or detention treatment systems, which may pose a threat to groundwater quality. Currently the OWTS program is without SWRCB regulation but you should be aware of threats to groundwater quality on the project site and evaluate and address accordingly in the environmental document. Design standards

for installation and operation of infiltration and detention treatment systems should protect groundwater quality and those protections should also be addressed in the environmental document.

2.2.1.2. Affected Environment

The works consist of widening lanes and shoulders, resurfacing to correct the superelevation and installing metal beam guardrails and warning signs. The project is located in Santa Clara County in and near the City of Saratoga on SR 9 at three locations. The locations are Location #1 at PM 2.5 to 2.7, Location #2 at PM 5.9 to 6.2 and Location #3 at PM 6.7 to 7.0.

Runoff from Location #1 flows 0.8 miles north to Stevens Creek. Stevens Creek then flows 1.9 miles northeast to Stevens Creek Reservoir, and then about 12 miles north to the San Francisco Bay. Stevens Creek Reservoir belongs to the Santa Clara Valley Water District, which provides drinking water to some residents in Santa Clara County. Stevens Creek is listed in the 2002 CWA Section 303(d) List of Water Quality Limited Segment for diazinon, a pesticide that is not discharged from Caltrans right-of-way.

Runoff from Location #2 flows about 100 feet south to Saratoga Creek, which runs alongside Route 9 for several miles upstream and downstream of this location. Saratoga Creek is listed in the 2002 CWA Section 303(d) List of Water Quality Limited Segment, also for diazinon.

Runoff from Location #3 flows about 30 feet north to Saratoga Creek, which crosses under SR 9 from south to north at the western end of Location 3.

The project is located in mountainous terrain of the Santa Cruz Mountains with elevations from about 1600 feet in Location #1 to about 500 feet in Location #3. The climate is moderate, with mild wet winters and cool dry summers. Dense woods cover most areas.

The project locations generally lie on tertiary sedimentary rocks in the Maymen-Los Gatos-Gaviota soil series. No National Resource Conservation Service (NRCS) soil information is available online for the project areas, but soils generally have high permeability, ranging from 0.2 to 6.3 inches per hour. They are also believed to be highly susceptible to erosion. There is no record of borings that show water levels in the area. Site assessment will be performed for potential lead contamination during construction.

2.2.1.3. Environmental Consequences

Project construction activities will cause a total disturbed soil area of 2.63 acres, add 0.32 acre of new impervious pavement and rework (replace) 1.59 acres of existing pavement. Sediment from disturbed soil areas created during construction could significantly degrade the quality of receiving waters. After construction general pollutants generated within Caltrans right-of-way, such as sediment and heavy metals, could also degrade water quality in receiving waters.

Water quality impacts to receiving waters will be minimized during construction by implementing Construction Site Best Management Practices (BMPs), and post-

construction impacts will be minimized through the implementation of Design Pollution Prevention BMPs, Treatment BMPs and Maintenance BMPs.

A 401 Certification will not be required so treatment will be to the maximum extent practicable. Hydromodification measures will not be required because the area of added pavement is less than an acre. There are currently no treatment measures within the project limits.

2.2.1.4. Avoidance, Minimization, and/or Mitigation Measures

Best Management Practices

Design Pollution Prevention BMPs are permanent measures that are typically incorporated into new projects for drainage needs that also reduce pollutant discharges. Design Pollution Prevention BMPs that are likely to be incorporated into this project include downdrains conveying pavement, slope runoff riprap at the end of the down drains and lined ditches to convey concentrated flows. Existing vegetation will also be preserved wherever possible.

Treatment BMPs are permanent measures incorporated into projects for the sole purpose of reducing pollutant discharges from the normal use of the highway. Treatment BMPs that may be incorporated into this project include bioswales and infiltration trenches, which are linear structures that can fit in the limited space between the pavement and the right-of-way line at some locations in this project.

This project will install permanent erosion control measures such as using compost, mulches and installing fiber rolls, netting and the application of hydroseed where required.

The lack of wide areas within the project sites precludes the incorporation of larger treatment BMPs such as media filters, detention basins and multi-chamber treatment trains. Traction sand traps would not be appropriate as ice on the pavement is not likely to be an issue within the project. Dry weather flow diversion measures would not be required because such flows typically occur only in tunnels. Gross solids removal devices would not be appropriate because trash is not a concern in this area, and wet basins are not allowed in this area because of vector concerns.

Construction Site BMPs for this project should include soil stabilization practices, sediment control practices, tracking control practices, wind erosion control, non-stormwater controls and waste management and material pollution controls.

Soil stabilization practices for this project should include scheduling, preservation of existing vegetation, plastic covers, earth dikes and ditches. Scheduling helps to restrict soil-disturbing activities to dry periods. Existing vegetation should be preserved wherever possible during construction by enclosing the area with ESA fencing. Plastic covers should be adequate for the fairly small amount of disturbed soil area. Earth dikes and ditches may be required to divert slope runoff around slopes cut for retaining walls.

Sediment control practices for this project should include silt fences, street sweeping and temporary drainage inlet protection. Silt fences prevent sediment from escaping from soil

areas. Street sweeping removes sediment from the pavement before it can be transported into the storm drain system by runoff. Temporary drainage inlet protection is the last line of defense against sediment and debris entering the storm drain system.

Tracking control practices for this project should include stabilized control entrances for each of the project areas. A stabilized construction entrance is a designated entrance or exit to a construction site where dirt and mud are removed from vehicles' wheels by driving over a rough surface such as gravel.

Wind erosion control will be important in this project because of the relatively large amount of earth-moving work and dirt stockpiles required. Dust control consists of applying water or other dust palliatives to prevent or alleviate wind-blown dust. Stockpiles should be covered with plastic and their bases surrounded with silt fences.

Non-stormwater controls for this project should include dewatering operations, and paving and grinding operations. Non-stormwater discharges are expected to occur from clear water diversions during the extension of culverts and groundwater may be encountered during retaining wall construction. Dewatering may be required to properly dispose of such non-stormwater discharges. Paving and grinding operations would be required at Location #3. These requirements will be covered under by contract specifications and by the project Storm Water Pollution Prevention Plan (SWPPP).

Waste management and materials pollution controls should include concrete waste management. Temporary Concrete Washout Facility prevents pollution by limiting the washout of concrete waste and wastewater to a specific location. Since there is not enough right-of-way to build concrete washouts, portable concrete washouts will be used.

This project requires a SWPPP to be prepared and implemented. The SWPPP will include specifications for the placement of erosion control and measures to reduce the introduction of pollutants from runoff during construction. No separate dewatering permit is required for discharges. Based on the scope of the work non-stormwater discharges are expected to occur from clear water diversions during the extension of culverts. Groundwater may be encountered during structure excavations.

Maintenance BMPs for this project should include drainage inlet stenciling at Location 2 and Location 3.

2.2.2. Geology/Soils/Seismic/Topography

The information in this section is summarized from the Department's Preliminary Geotechnical Report for the Highway 9 Safety Project date June 2009. Topography, geology, soils, and seismic concerns as they relate to public safety and project design are discussed in this section.

2.2.2.1. Regulatory Setting

The Historic Sites Act of 1935 establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under the California Environmental Quality Act.

2.2.2.2. Affected Environment

The preliminary geotechnical report was prepared to present existing geologic, and geotechnical information.

Topography

The road is a narrow, winding, 2-lane road with small or non-existent shoulders and very steep slopes adjacent to the road. At Wall 1 (Location 1, PM 2.5-2.7), the road lies approximately 1650 feet above sea level. Steep slopes lay both south and north of the road. At Wall 2 (Location 2, PM 5.95-6.2), the road lies north of and parallel to Saratoga Creek, at approximately 650 feet elevation. North of the highway the slopes are steep. South of the road, the slope drops 50 feet to Saratoga Creek, which lies within 200 lateral feet of the roadway. At Wall 3 (Location 3, PM 6.7-6.75), topography is similar to Location 2. Saratoga Creek runs nearly perpendicular to the road and under the roadway just beyond the limits of the proposed retaining wall at Location 3.

Regional Geology

The project is located in the Santa Cruz Mountains, part of the Coast Range geomorphic province of California. The Bay Area consists of northwest-trending ridges, gently sloping hills, intermontane valleys, and large elongated depressions. The Santa Cruz Mountains consist of a number of complex ridges or small ranges with rugged slopes. The San Andreas Fault system, the most prominent geologic feature in the area, includes the San Andreas Fault as well as numerous splays. The major faults within the system are predominately right-lateral strike-slip faults with a compressional component. These act together to form the regional topography. San Francisco Bay, a partially filled, northwest-trending depression extending from the Santa Clara Valley in the south to the Petaluma Valley in the north, is a result of these fault interactions. The region is highly seismically active, with numerous active and potentially active faults. For most locations in the Santa Cruz Mountains, the San Andreas Fault zone controls the seismic hazard.

Site Geology

The Geologic Map of San Francisco-San Jose Quadrangle1 (Figure 2.14) shows that the retaining wall at Location #1 (PM 2.5) would lie in the Vaqueros Sandstone, the retaining wall at Location #2 (PM 5.9) would lie in the Franciscan mélangé and the retaining wall at Location #3 (PM 6.7) would lie in the Santa Clara formation.

Vaqueros Sandstone

The Vaqueros Sandstone is a lower Miocene and Oligocene aged, light-gray to yellow-brown, fine- to medium-grained, locally coarse-grained, arkosic sandstone interbedded with olive- and dark-gray to red and brown mudstone and shale.

Franciscan Complex

The Franciscan complex is a 'Block-in matrix' formation, with harder blocks of all sizes randomly distributed in a soft, sheared matrix. Rocks in the Franciscan complex include sheared argillite, serpentine, and greywacke sandstone.

Santa Clara Formation

Santa Clara Formation is a lower Pleistocene and upper Pliocene, gray to red-brown poorly indurated conglomerate, sandstone, and mudstone in irregular and lenticular beds. Conglomerate consists mainly of sub-angular to sub-rounded cobbles in a sandy matrix but locally includes pebbles and boulders. Cobbles and pebbles are mainly chert, greenstone, and graywacke with some schist, serpentinite, and limestone.

The San Andreas Fault zone bisects the SR 9 between PM 3.25 and 4.75. The Working Group on California Earthquake Probabilities (2003) assigns the San Andreas Fault a 21% chance of producing an earthquake greater than M 6.7 in the next 30 years. Very strong ground motion is a near-certainty within the design life of any structure built at the site.

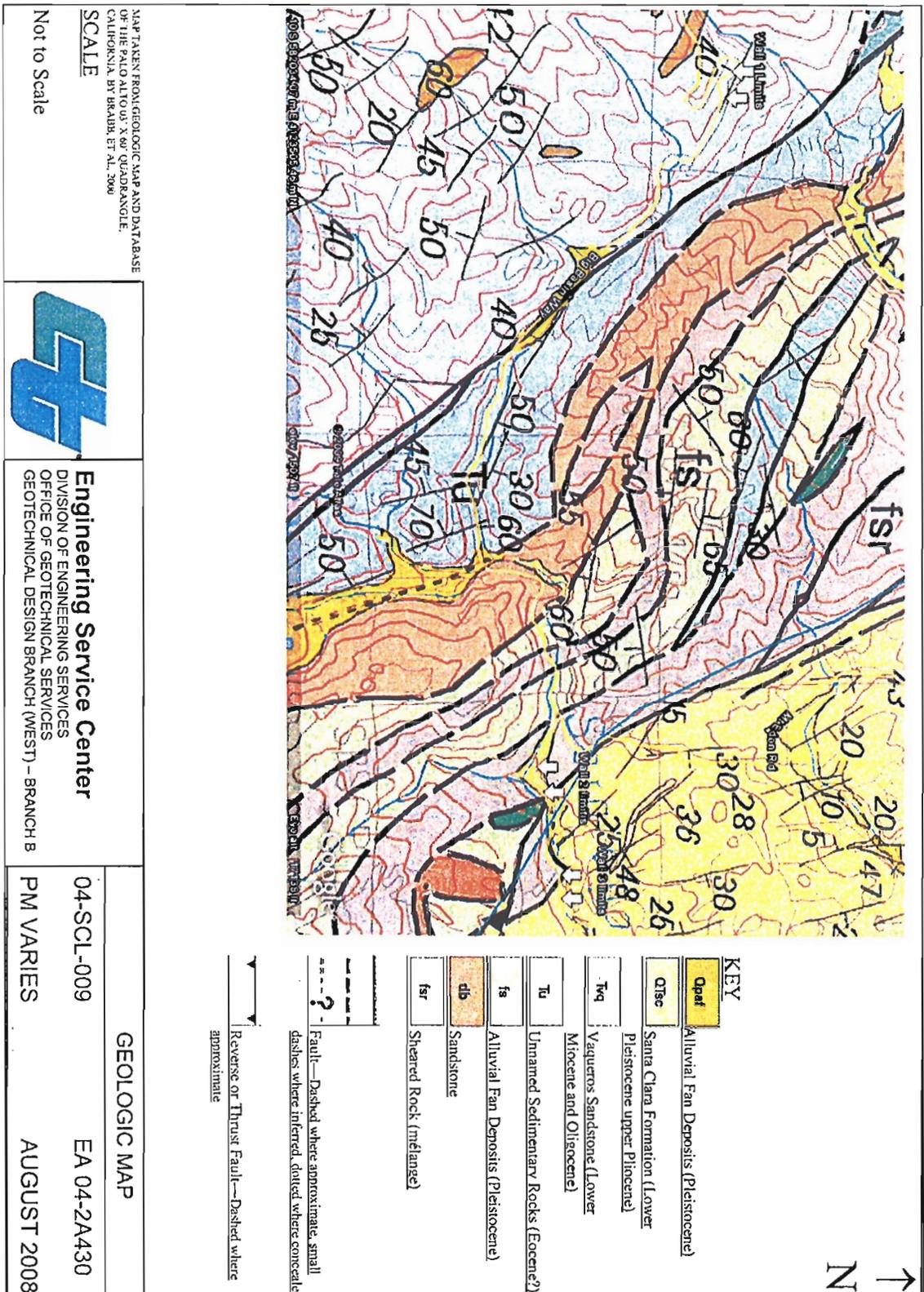


Figure 2.14: Geologic Map of San Francisco-San Jose Quadrangle1

Previously Mapped Landslide/Slope Stability

Landslides are abundant in the area of Saratoga. These locations are underlain by the Santa Clara Formation, which contains weak smectite-bearing claystone that could cause the landslides. Many of the landslides are on slopes that are not particularly steep, often less than 2(H):1(V). These landslides generally are shallow, though some may range up to several tens of feet in thickness. The shallow landslides likely formed in clay-rich soils developed on the Santa Clara Formation, whereas some of the deeper slides may have developed in underlying claystone beds.

Soils

The NRCS survey for Santa Clara County is currently being updated and does not offer any information about the project site. The USDA survey from 1968 has only general maps that do not allow determination of the soil type more specifically than the series level. The three sites lie on Maymen-Los Gatos-Gaviota soil series. The soils have permeability ranging from 0.20 (in the Maymen) to 6.3 (in the Los Gatos) inches per hour. They have moderate (Gaviota and Los Gatos) to very high (all three soils) erodibility. The site soil shrink-swell potential is classified as low (USDA, 1968).

Seismicity

SR 9 crosses the Holocene-active San Andreas Fault zone at approximately PM 3.25 – 4.75. The two major active faults in the area, the San Andreas and the San Gregorio, both have the potential for magnitude 7.5 or greater earthquakes.

Groundwater

The depth to groundwater is not known at this time, but groundwater level can be assumed to lie near creek level.

2.2.2.3. Environmental Consequences

The proposed project would not have significant geotechnical impacts that could not be mitigated to a less than significant level. However, there are some geologic constraints that may require special considerations such as rockfall debris flow, slope stability, and associated seismic risks. The alignment is within one mile of the historically active San Andreas Fault zone faults. Groundwater could be present during pile installation, therefore dewatering may be required.

Landslide/Slope Stability

Location #1 (PM 2.70), located adjacent to the San Andreas Fault rift zone, has developed a large landslide block in the Tertiary marine rocks on the southwest side of the fault. At Locations #2 (PM 5.9) and #3 (PM 6.7), there have been numerous landslides.

The retaining wall at Location #2 would lie in the Franciscan mélange, and the retaining wall at Location #3 would lie in the Santa Clara formation. Both the Franciscan mélange and Santa Cruz formation are considered unstable geologic units.

Seismicity

Location #1 is located within one mile of the San Andreas Fault; a major earthquake could induce a significant ground shaking. The San Andreas Fault has the potential for magnitude 7.5 or greater earthquake. The Association of Bay Area Governments (ABAG) identified the project site as having violent to very violent levels of ground shaking potential (2007).

2.2.2.4. Avoidance, Minimization, and/or Mitigation Measures

Field and subsurface exploration, laboratory tests and analyses will be performed to determine soil strengths and design parameters for the proposed retaining walls.

Potential ground shaking issues associated with Location #1 will be reduced to levels of acceptable risk through complying with California Building Codes (CBC).

Exploration and Investigations

Exploration will be necessary to determine groundwater levels, soil types and strengths, and structural conditions. Several investigative methods may be used, including but not limited to: soil borings, rock coring, cone penetrometry (CPT) studies, and geophysical studies. Laboratory testing may be required to determine soil strength, permeability, moisture content, and grain size.

Groundwater levels will be determined with borings as part of the Geotechnical Design Report investigation. Groundwater levels fluctuate seasonally and should be monitored through the winter to find the highest levels. Vertical and/or horizontal borings will be advanced at all sites where walls are proposed. The borings will characterize the geologic materials at depth, determine the suitability of the sites for walls, and provide input for the wall design.

Seismic refraction at each site will help determine the excavatability of the subsurface materials.

Generally, one boring is required per 200 lineal feet of wall, to a depth of two to two and one half times the height of the wall. Horizontal borings are recommended at all cuts and soil nail wall locations to characterize the soil strength.

Cone Penetrometry (CPT) may be used to determine groundwater depth, and subsurface soil types. It may also be useful in locating or characterizing thick, potentially expansive clays.

Dewatering

The exploratory drilling for the Geotechnical Design Report will delineate any areas that will require dewatering. We are not aware of any areas that currently require dewatering or suffer from settlement or other secondary effects of dewatering. All walls and cut slopes proposed for the project should include dewatering features, such as horizontal drains or underdrains.

Corrosion

Corrosivity tests will be conducted where appropriate as part of the drilling program for the three walls.

2.2.3. Hazardous Waste

The information presented in this section is derived from an *Initial Site Assessment (ISA)* (10/10/2009).

2.2.3.1. Regulatory Setting

Many state and federal laws regulate hazardous materials and hazardous wastes. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

Community Environmental Response Facilitation Act (CERFA) of 1992;
Clean Water Act;
Clean Air Act;
Safe Drinking Water Act;
Occupational Safety and Health Act (OSHA);
Atomic Energy Act;
Toxic Substances Control Act (TSCA); and
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the Federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

2.2.3.2. Affected Environment

Studies previously completed along the SR9 corridor note the potential presence of aerially deposited lead (ADL) and Serpentine asbestos. The preliminary evaluation (regulatory review) of the project area indicated that no known sources of potential environmental concern are present. Lead contamination in the unpaved areas may be present because of ADL from historic motor vehicle exhaust.

2.2.3.3. Environmental Consequences

There are no known or listed hazardous waste sites or properties within the proposed right-of-way.

Exhaust from vehicle traffic on SR9 may have contaminated surface soils within the project limits with ADL. ADL was the result of using automotive leaded gasoline until the mid-1980s. Exposed soils adjacent to SR9 are likely to be contaminated with ADL.

2.2.3.4. Avoidance, Minimization, and/or Mitigation Measures

The Department will perform testing for ADL and asbestos during the PS&E stage, which will occur prior to construction. If either of these contaminants is found, special handling would be required. This would include implementing a Department health and safety plan. All activities involving contaminated soil will be planned to comply with the various regulatory agencies' requirements.

If Serpentine asbestos were discovered in significant quantities during the project, then best management practices (BMP) would be implemented.

2.3. BIOLOGICAL ENVIRONMENT

The following sections are summarized from the Natural Environment Study (July, 2009) for the proposed project.

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. This section also includes information on wildlife corridors and habitat fragmentation. 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.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section 2.3.5. Wetlands and other waters are also discussed in section 2.3.2.

2.3.1.1. Affected Environment

The land surrounding the project limits includes ruderal vegetation, riparian, woodland and potential seasonal wetland areas. Various plants were discovered in all three locations. Caltrans District 4 Biologist conducted an initial site evaluation on January 10, 2008. On September 3, 2008, a field visit was conducted to determine the Biological Study Area (BSA)¹.

Caltrans biologists identified other communities in the BSA that do not have special status standing. These are the Douglas fir forest, Southern sycamore alder riparian woodland, lacustrine, and riverine communities. These communities may provide habitat for special status species in the BSA.

2.3.1.2. Environmental Consequences

The project will require cutting back wooded hillsides at each of the three locations. The number of trees removed will depend on field conditions such as geology at each wall installation, condition of trees, placement of soil nails and other considerations to insure post-construction stability of the retaining wall. The area of permanent impact is between the current edge of pavement and the wall. All trees in areas of permanent impact will be removed. In addition, an area nine feet beyond the proposed wall at each location was characterized as temporary impacts. Trees in this area may or may not be removed but have been included as removals for this analysis.

2.3.1.3. Avoidance, Minimization, and/or Mitigation Measures

To the extent possible, trees in the area of the retaining wall installation will be preserved in place. If trimming is sufficient to clear the area required for construction activities, the tree will be trimmed by an arborist before construction occurs. Trees that remain in place behind the retaining wall will be evaluated for impacts from the placement of soil nails.

2.3.2. Wetlands And Other Waters

2.3.2.1. Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S.C. 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates 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 subject to saturation/inundation). All three parameters must be present, under normal

¹ The biological study area (BSA) is the area evaluated in this document for potential effects to natural resources from the proposed roadway project. It includes the project footprint and an area adjacent to the project footprint. Caltrans defined the BSA for each segment based on the scope of construction in each segment, required right-of-way (ROW) acquisition and easements for construction of soil-nail retaining walls.

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 no discharge of dredged or fill material can 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 Corps of Engineers (ACOE) with oversight by the Environmental Protection Agency (EPA).

The Executive Order for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, 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 Department of Fish and Game (CDFG) and the Regional Water Quality Control Boards (RWQCB). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the 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 CDFG before beginning construction. If DFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG 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 ACOE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

2.3.2.2. Affected Environment

Caltrans District 4 Biologist, on April 6, 2008, went into the field to identify potential wetlands within the BSA. A clearing on the north side of the road across from the Water Facility at location #2 is a potential seasonal wetland. It is adjacent to a roadside ditch that may provide connectivity with the pond or creek on the other side of the road, in which case it would fall under Section 404 jurisdiction of the federal Clean Water Act. Dock (*Rumex* sp.) and various grasses, including one unidentified dominant species of grass, occur in the clearing. A spring box occurs just uphill of the potential seasonal wetland; water was flowing from the pipe during the site visit. Towards the spring box area, some scattered *Cyperus* sp. and *Juncus* sp. grow in the roadside ditch. One or a few clumps of jubata grass (*Cortaderia jubata*) occur on the clearing edge.

Saratoga Creek is a perennial stream. Water was present in the channel during each of the site visits. At Location #1, Saratoga Creek is located north of SR 9 outside of the BSA. At Locations #2 and most of Location #3, Saratoga Creek parallels SR 9 on the southern

side of the BSA. Near post marker 6.7 at Locations 3, the creek crosses under SR 9 at Bridge No. 37-0078.

On the north side of SR 9 an area of saturated ground was observed during site visits. This saturation was observed during or shortly after rain events. The plant community here was predominantly ruderal species. The soils were highly disturbed and a drainage ditch had been created and maintained parallel to the roads shoulder backing. At the western edge of this area, a spring box was observed to contain water from an underground source. This springbox drains and creates a seep down slope of the box where it pools at the west end of the drainage ditch. The spring box had water flow through it on every site visit. The seep was consistently moist also, though the pooling varied depending on recent rain events.

2.3.2.3. Environmental Consequences

The project will not require any in stream or channel work nor dewatering techniques. Impacts to riparian habitat are limited to the placement of retaining walls. At locations #1 and #3, installation of the soil nail retaining walls will require the removal of approximately 30 linear feet of riparian vegetation.

2.3.2.4. Avoidance, Minimization, and/or Mitigation Measures

Caltrans will require a NPDES and a SWPPP to avoid and minimize discharges into the potential seasonal wetland. The NPDES and a SWPPP will include specifications for the placement of erosion control and measures to reduce the introduction of pollutants from runoff during construction.

2.3.3. Plant Species

2.3.3.1. Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) share regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section 2.3.5 in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including CDFG fully protected species and species of special concern, USFWS candidate species, and non-listed California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at Fish and Game

Code, Section 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

2.3.3.2. Affected Environment

The special-status plant species discussed below are known to occur or may occur in the project action area. This determination was made through consideration of habitat availability for each part of the organism's life history, the species historic range, documented occurrences and ecological factors that may inhibit dispersal, immigration and establishment in the action area. On March 26, 2008 and November 5, 2008, Caltrans District 4 Biologist conducted field visits to identify rare plants within the BSA.

One federally listed plant species may potentially occur within the project affect area. The robust spineflower (*Chorizanthe robusta* var. *robusta*) has a federal endangered listing. CNPS evaluates robust spineflower status as rare, threatened or endangered throughout its distribution and seriously threatened in California. Additional special status species have been identified by CNPS ranking of 1B -- rare, threatened or endangered throughout its distribution. The 1B classification is used by CNPS in conjunction with an addition suffix code representing a threat assessment of the species within California. 1B.1 status is seriously threatened in California. The 1B.2 rank indicates a moderate degree of threat. The determination of occurrence was based on the presence of suitable habitat within the BSA. All of these species can be found in woodlands, clearings and riparian habitats that are similar to those identified in the BSA.

Robust Spineflower

The robust spineflower germinates in winter months and blooms from April through June. Favorable climatic conditions can foster blooms throughout the summer. The USFWS list four habitat elements important for the robust spineflower's conservation: sandy soils, plant communities with associated species, plant communities with little or no non-native species cover and occasional soil disturbance, such as natural dune formation processes. Historically, populations were found in interior locations of Santa Clara and Santa Cruz counties (USFWS 2004).

Though associated with coastal dunes, the ancient fluvial deposits in the Santa Cruz Mountains provide sandy soil suitable for this species. Plant communities that support spineflower populations include oak woodland communities where there are openings among the dominant plants. (USFWS, 2004) Similar open woodlands do occur in the BSA. However, the BSA does have non-native plant cover with non-natives being the dominant species. In addition, soil disturbance in the BSA does not parallel that of dune processes. Disturbances here are likely to be of higher intensity and frequency. Seasonal rainfall, disturbance from road maintenance and operation activities and private development actions are more representative of the typical disturbance events in the action area.

Robust spineflower is threatened by urban development, recreational activities and competition with non-native vegetation.

Environmental Consequences

No robust spineflower was encountered during the plant surveys. However, only one survey coincided with the bloom period and it occurred during the earliest portion of the flowering season. It is possible that the species was overlooked, was not in bloom, or that seeds are present but had not germinated this season.

Disturbance in areas that have not been previously developed will be limited to areas that do not demonstrate the habitat characteristics of the robust spineflower. Furthermore, implementing the avoidance and minimization measures would eliminate impacts on robust spineflower if any individuals of this species are present in the BSA.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will conduct preconstruction surveys during the first blooming period before construction of the project. If the species is found in the BSA but not in the project footprint, Caltrans will delineate the area as environmentally sensitive on project plans and protect it in place using ESA fencing. If it occurs in the project footprint, Caltrans will contact USFWS and CDFG. Caltrans will work with the agencies to obtain the appropriate collection permits and to develop a relocation strategy.

Franciscan Onion (Allium peninsulare var. franciscanum)

Franciscan Onion grows in the herbaceous understory of cismontane woodlands from 100 to 900 feet. It prefers clay or volcanic and serpentinite soils. The plant blooms from May through June. The CNDDDB lists occurrences of this species within Santa Clara in the Santa Cruz Mountains north of Location 1.

Environmental Consequences

Location #1 provides the appropriate habitat in the Douglas fir community. No individual of this species was identified during the surveys performed. However, the surveys may not have coincided with the peak blooming period of the plant and thus were overlooked. In addition, seeds may lie dormant in the soil when conditions are not conducive to germination.

Permanent impacts to the Franciscan onion habitat will occur at Location 1 due to cutting back the slope and tree removal. Temporary impacts to habitat will occur during the installation of retaining walls. However, implementing the avoidance and minimization measures will eliminate potential for impacts to individuals of this species.

Avoidance, Minimization, and/or Mitigation Measures

Prior to project construction, Caltrans will develop a protection, removal and relocation plan for rare, endangered and threatened plant species in cooperation with CDFG. Caltrans will conduct preconstruction surveys during the first blooming period before anticipated construction of the project. If a specimen of Franciscan onion is identified in the BSA but not in the project footprint, Caltrans will delineate the area as environmentally sensitive on project plans and protect it in place using ESA fencing. If

the plant occurs in the project footprint, Caltrans will contact CDFG and implement the plant protection plan.

Santa Cruz Mountains Pussypaws (Calyptridium parryi var. hessea)

Santa Cruz Mountains Pussypaws grow in openings in cismontane woodlands with gravelly or sandy soil between 900 and 4000 feet. The plant blooms from May through August. The CNDDDB lists occurrences of this species in the Santa Cruz Mountains west and southwest of the project location at elevations between 0 and 2000 feet.

Environmental Consequences

Location #2 provides the appropriate habitat in the clearing on the north side of SR 9 and along the slope west of this clearing. No individual of this species was identified during the surveys performed. However, the surveys may not have coincided with the peak blooming period of the plant and thus were overlooked. In addition, seeds may lie dormant in the soil when conditions are not conducive to germination.

Implementing the avoidance and minimization measures will eliminate potential for impacts to individual Santa Cruz Mountains Pussypaws.

Permanent impacts to the Santa Cruz Mountains Pussypaws habitat will occur at Location 1 due to cutting back the slope and tree removal. Temporary impacts to habitat will occur during the installation of retaining walls.

Avoidance, Minimization, and/or Mitigation Measures

In cooperation with CDFG, Caltrans will develop a protection, removal and relocation plan for rare, endangered and threatened plant species, prior to project construction. Caltrans will conduct preconstruction surveys during the first blooming period before anticipated construction of the project. If a specimen of the species is identified in the BSA but not in the project footprint, Caltrans will delineate the area as environmentally sensitive on project plans and protect it in place using ESA fencing. If the plant occurs in the project footprint, Caltrans will contact CDFG and implement the plant protection plan.

Western Leatherwood (Dirca occidentalis)

Western leatherwood grows in broadleaf upland forests, riparian woodlands and cismontane woodlands between 150 and 1200 feet. The plant blooms from January through March. The CNDDDB lists occurrences of this species in the Santa Cruz Mountains north and east of the project location at elevations between 0 and 2000 feet.

Environmental Consequences

Locations #1, #2 and #3 provide the appropriate habitat for western leatherwood. Suitable habitat includes: the Douglas fir community at Location #1; the southern sycamore riparian community at Locations #2 and #3; and the potential seasonal wetland at Location #2. No individual of this species were identified during the surveys

performed. However, the surveys may not have coincided with the peak blooming period of the plant and thus were overlooked. In addition, seeds may lie dormant in the soil when conditions are not conducive to germination.

Permanent impacts to western leatherwood habitat will occur at Locations #1 and #3 due to cutting back the slope and removing trees. Temporary impacts to habitat will occur at these locations during the installation of the retaining walls.

Implementing the avoidance and minimization measures will eliminate potential for impacts to individual western leatherwood plants.

Avoidance, Minimization, and/or Mitigation Measures

In cooperation with CDFG, Caltrans will develop a protection, removal and relocation plan for rare, endangered and threatened plant species, prior to project construction. Caltrans will conduct preconstruction surveys during the first blooming period before anticipated construction of the project. If a specimen of western leatherwood is identified in the BSA but not in the project footprint, Caltrans will delineate the area as environmentally sensitive on project plans and protect it in place using ESA fencing. If the plant occurs in the project footprint, Caltrans will contact CDFG and implement the plant protection plan.

Loma Prieta Hoita (Hoita strobilina)

Loma Prieta hoita grows in mixed oak woodland and coast live oak forest and woodland between 100 and 2,000 ft on slopes. The plant blooms from January through March.

Environmental Consequences

No individuals of this species were identified during the surveys performed. However, the surveys may not have coincided with the peak blooming period of the plant in this locale and thus were overlooked. In addition, seeds may lie dormant in the soil when conditions are not conducive to germination.

Location #2 provides the appropriate habitat along the slope to be cutback since this location is most like mixed oak woodland in community structure.

Permanent impacts to Loma Prieta hoita habitat will occur at Location #2 due to cutting back the slope and removing trees. Temporary impacts to habitat will occur at these locations during the installation of the retaining walls.

Implementing the avoidance and minimization measures will eliminate potential for impacts to individual plants.

Avoidance, Minimization, and/or Mitigation Measures

In cooperation with CDFG, Caltrans will develop a protection, removal, and relocation plan for rare, endangered, and threatened plant species, prior to project construction. Caltrans will conduct preconstruction surveys during the first blooming period before

anticipated construction of the project. If a specimen of arcuate bush-mallow is identified in the BSA but not in the project footprint, Caltrans will delineate the area as environmentally sensitive on project plans and protect it in place using ESA fencing. If the plant occurs in the project footprint, Caltrans will contact the CDFG and implement the plant protection plan.

*Arcuate Bush-mallow (*Malacothamnus arcuatus*)*

Arcuate bush-mallow grows in cismontane woodlands between 45 and 1,000 ft. The plant blooms from April through September.

Environmental Consequences

No individual of this species was identified during the surveys performed. However, the surveys may not have coincided with the peak blooming period of the plant and thus were overlooked. In addition, seeds may lie dormant in the soil when conditions are not conducive to germination.

Location #1 provides the appropriate habitat in the Douglas fir community.

Permanent impacts to arcuate bush-mallow habitat will occur at Location #1 due to cutting back the slope and removing trees. Temporary impacts to habitat will occur at these locations during the installation of retaining walls.

Implementation of the avoidance and minimization measures will eliminate the potential for impacts to individual arcuate bush-mallow plants.

Avoidance, Minimization, and/or Mitigation Measures

In cooperation with CDFG, Caltrans will develop a protection, removal, and relocation plan for rare, endangered, and threatened plant species, prior to project construction. Caltrans will conduct preconstruction surveys during the first blooming period before anticipated construction of the project. If a specimen of Franciscan onion is identified in the BSA but not in the project footprint, Caltrans will delineate the area as environmentally sensitive on project plans and protect it in place using ESA fencing. If the plant occurs in the project footprint, Caltrans will contact CDFG and implement the plant protection plan.

*Davidson's bush-mallow (*Malacothamnus davidsonii*)*

Davidson's bush-mallow grows in cismontane and riparian woodlands between 500 and 3000 ft. The plant blooms from June through January. The CNDDDB records occurrences of the species in the Santa Cruz Mountains north of the project.

Environmental Consequences

Locations #1, #2 and #3 provide the appropriate habitat for Davidson's bush-mallow. Appropriate habitat includes: the Douglas fir community at Location #1; the southern sycamore riparian community at Locations #1 and #2; and the potential seasonal wetland

at Location #2. No individual of this species was identified during the surveys performed. However, the surveys may not have coincided with the peak blooming period of the plant and thus were overlooked. In addition, seeds may lie dormant in the soil when conditions are not conducive to germination.

Permanent impacts to Davidson’s bush-mallow habitat will occur at Locations #1 and #3 due to cutting back the slope and removing trees. Temporary impacts to habitat will occur at these locations during the installation of retaining walls. However, implementing the avoidance and minimization measures will eliminate potential for impacts to individual plants.

Avoidance, Minimization, and/or Mitigation Measures

In cooperation with CDFG, Caltrans will develop a protection, removal, and relocation plan for rare, endangered and threatened plant species, prior to project construction. Caltrans will conduct preconstruction surveys during the first blooming period before anticipated construction of the project. If a specimen of Davidson’s bush-mallow is identified in the BSA but not in the project footprint, Caltrans will delineate the area as environmentally sensitive on project plans and protect it in place using ESA fencing. If the plant occurs in the project footprint, Caltrans will contact CDFG and implement the plant protection plan.

Robust Monardella (Monardella villosa ssp. globosa)

Robust monardella grows in broadleaf upland forests, riparian woodlands and cismontane woodlands between 300 and 3,000 ft. The plant blooms from June through July.

Environmental Consequences

Locations #1, #2 and #3 provide the appropriate habitat for robust monardella, this includes: the Douglas fir community at Location #1; the southern sycamore riparian community at Locations #2 and #3; and the potential seasonal wetland at Location #2. No individual of this species was identified during the surveys performed. However, the surveys may not have coincided with the peak blooming period of the plant and thus were overlooked. In addition, seeds may lie dormant in the soil when conditions are not conducive to germination.

Permanent impacts to robust monardella habitat will occur at Locations #1 and #3 due to cutting back the slope and tree removal. Temporary impacts to habitat will occur at these locations during the installation of retaining walls.

Implementing the avoidance and minimization measures will eliminate potential for impacts to individual robust monardella plants.

Avoidance, Minimization, and/or Mitigation Measures

In cooperation with CDFG, Caltrans will develop a protection; removal and relocation plan for rare, endangered and threatened plant species, prior to construction. Caltrans will conduct preconstruction surveys during the first blooming period before construction of the project. If a specimen of this species is identified in the BSA but not in the project

footprint, Caltrans will delineate the area as environmentally sensitive on project plans and protect it in place using ESA fencing. If the plant occurs in the project footprint, Caltrans will contact CDFG and implement the plant protection plan.

2.3.4. Animal Species

2.3.4.1. Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration (NOAA) Fisheries and the California Department of Fish and Game (CDFG) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in section 2.3.5 below. All other special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations pertaining to wildlife include the following:

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

State laws and regulations pertaining to wildlife include the following:

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

2.3.4.2. Affected Environment

The special-status animal species discussed below are known to occur or may occur in the project action area. This determination was made through consideration of habitat availability for each part of the organism's life history, the species historic range, documented occurrences and ecological factors that may inhibit dispersal, immigration and establishment of a population in the action area.

One federally listed animal species may potentially occur within the project affect area. California red-legged frog (*Rana draytonii*) is listed as federally endangered. It is also a California species of special concern. On March 26, 2009 and April 14, 2009, Caltrans District 4 Biologist conducted habitat assessments and visual encounter surveys for California red-legged frog.

Additional special status species that may occur are considered special status due to specific federal or California state regulations. The Migratory Bird Treaty Act protects migratory birds. This act gives special status to most native North American birds, their nests and eggs. Nesting raptors are protected under California Fish and Game Code. Fully protected status has been given by various sections of the California Fish and Game

Code, including some reptiles and amphibians, birds, and mammals. Species of special concern (SSC) are native California species that meet one or more of several criteria that indicate the species population is low enough to reach extinction or which is vulnerable to extinction. SSC may be listed under the federal ESA, but have not been listed under CESA.

Western Pond Turtle (Clemmys marmorata) and Southwestern Pond Turtle (Clemmys marmorata pallida)

The Western pond turtle is known to have distinct subspecies in California, the Northwestern pond turtle (*Clemmys marmorata marmorata*) and Southwestern pond turtle. There is some differentiation between the two in physical characteristics such as coloring, size and shell shape. The two broadly intergrade throughout California. The following discussion of Western pond turtle (WPT) is applicable to both subspecies and is derived from Amphibian and Reptile Species of Special Concern in California (Jennings and Hayes, 1994).

WPT is distributed along Pacific slope drainages from elevations near sea level to over 5000 feet. Occurrences have been recorded on the western and eastern margins of the Santa Cruz Mountains in Santa Clara County. WPT is an aquatic turtle and will leave its aquatic habitat throughout winter in order to reproduce and aestivate. The species requires aquatic habitat with some slack or slow moving waters. Along the north central coast, the WPT may remain active all year round depending on seasonal conditions. Activity is dependent on surface water temperature and activity levels increase when surface water temperatures reach 15°C. The most observed behavior of WPT is thermoregulation and it varies with time of day and season. Typically, WPT bask when the air temperature is greater than water temperature. Basking is typically done on logs or other emergent objects. However, if the air temperature is too warm, basking may be done at the water surface or on floating mats of vegetation. The availability of aerial and basking sites is a limiting factor for habitat quality. WPT mating occurs in late May, but may occur anytime conditions are favorable. Females may move upwards of 1,200 feet to upland locations to excavate a nest and lay eggs. Egg development is dependent on a thermal and hydric regime. Nesting sites must be uplands with low moisture, clay or silty substrates and, in part, unshaded or on south-facing slopes. After hatching, the young will normally stay over winter in the nest and emerge the next spring. The young then move to the aquatic site and forage in shallows with dense submerged or emergent vegetation for cover.

Environmental Consequences

A search of the CNDDDB produced occurrences of WPT in the region. However, no individuals were observed during the habitat assessment of the creek and sediment pond.

Saratoga Creek and the sediment settling pond at Location #2 provide suitable habitat for the aquatic portions of the WPT's life stages, including slower moving and slack deep waters, shallows with emergent vegetation, side pools and logs for aerial basking. Appropriate breeding and upland habitat can be found on some of the south facing hillsides that border the creek. Clearings along the roadside adjacent to aquatic sites may also provide suitable upland habitat when the slope provides sufficient drainage.

Other areas in the BSA, do not have the elements for supporting WPT in any of its life stages. This includes paved surfaces, shoulder backing and maintenance pullouts along the road. In many places, the steep slopes along the verge of SR9 in the project locations are the result of originally cutting back hillsides for SR9. These slopes are sheared outcrops. These slopes are north facing and rocky with no clay or silt substrates for nesting.

Implementation of the recommended avoidance, minimization, and/or mitigation measures (AMMs) will avoid impacts to individual WPTs that may occur in the project footprint. The project will not impact WPT habitat.

Post construction, widening of the road will increase sheet flow across the paved surface and increase run-off entering drainages in the project action area. Improvements to the drainage system will minimize the effects of roadway runoff into drainages and watercourses. The project will not increase vehicle numbers while the improved sight distances can decrease wildlife mortality from traffic. There would be no additional impacts from operations and maintenance of SR 9 after project completion.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will delineate potential habitat adjacent to the project footprint as environmentally sensitive areas on project plans and use ESA fencing and wildlife exclusion fencing when appropriate to protect habitat and animals in place. Caltrans will develop a relocation strategy with the CDFG before project construction. The purpose of this plan is to set a protocol for avoiding take of individuals in the project footprint. Caltrans will conduct preconstruction surveys prior to any ground disturbing activities. If WPT or occupied nests are observed in BSA but not in the project footprint, Caltrans will contact CDFG to report occurrences for the agency's database. If WPT or nests are found in the project footprint, Caltrans will contact USFWS and CDFG. Caltrans will work with the agencies to relocate any animals to a suitable location. In addition to these species-specific measures, this species' habitat would benefit from AMMs developed for the SWPPP, erosion control, spill prevention and construction traffic restrictions.

Cooper's Hawk (Accipiter cooperii)

The following description was developed from California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California and species account from the California Wildlife Habitat Relations.

The Cooper's hawk is a year round resident. California may be a migratory destination for some Cooper's hawks from the more northern parts of the country. They can be found from sea level to above 9000 feet. Second growth coniferous forests, oak woodland and deciduous riparian habitat are important to all stages of this raptor's life history. Cooper's hawks nest in deciduous trees in crotches or cavities that are usually 20 to 50 feet off the ground. They will preferentially nest in second growth coniferous stands or in deciduous riparian areas that are closest to streams. The hawk breeds from March through August, with nesting peaking from May through July. They use dense canopy cover for an ambush predator hunting style, swooping from the cover to prey on other birds. Currently, population has declined over the past decades. This may be due to competition

with other raptors for breeding and roosting habitat. They are also susceptible to pesticide use, human disturbance and habitat destruction (CDFG). The Cooper's hawk has been put on the watch list by CDFG a status that indicates the recent delisting of the species under the federal ESA, CESA or removal from the SSC list.

Environmental Consequences

While the CNDDDB shows regional occurrences of these species, no individuals were observed during the habitat assessment of the project site.

Locations #1, #2 and #3 have woodlands, riparian corridors and clearings that provide suitable nesting and foraging habitat for the Cooper's hawk. The wooded slopes in particular provide cover from ambush predators near the open area of the roadway.

The placement of retaining walls will require cutting back hillside slopes. The wooded slopes at Locations #1, #2 and #3 could provide appropriate nesting and foraging habitat. Thus, the project will impact habitat for the Cooper's hawk.

Post construction, the project will not increase vehicle numbers while the improved sight distances can decrease wildlife mortality from traffic. There would be no additional impacts from operations and maintenance of SR 9 after project completion.

Implementation of the AMMs will avoid impacts on nesting birds and avoid project impacts on individuals.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will delineate potential habitat adjacent to the project footprint as environmentally sensitive areas on project plans and use ESA fencing and wildlife exclusion fencing when appropriate to protect habitat and animals in place. Avoiding construction during the breeding season (spring through summer) is not a feasible avoidance measure. Typical construction schedules run from mid March to mid October and restricting construction to a few months during the season would add undue time and cost burdens to the project. To avoid mortality and minimize reproductive loss, Caltrans would require a work window for clearing, grubbing and tree removal to occur outside the nesting season. Surveys for bird nesting would be done within the BSA through out the nesting season and nesting prevention measures would be implemented. If occupied nests are observed in the BSA, Caltrans will contact CDFG to report occurrences for the agency's database. Caltrans will provide an appropriate buffer between any occupied nest and construction actions.

White-tailed Kite (Elanus leucurus)

The following description was developed from California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California and species account from the California Wildlife Habitat Relations.

The white-tailed kite is a permanent resident in coastal and valley lowlands, but can be nomadic in response to prey availability. The kite breeds from February to October, but

the peak nesting period is from May to August. It uses herbaceous and open clearings in most mountainside habitats of California. It requires trees with dense canopies for cover and is predominantly associated with agricultural and pasture lands. It places its nest from 20-100 ft above in the tops of dense oak, willow, or other tree stands near its foraging area. In recent years, it has increased its range and numbers. Threats to the species include pesticide use, habitat fragmentation and predation pressures from nuisance species. California Fish and Game Code lists the white-tailed kite as Fully Protected. Fully Protected species may not be injured or killed.

Environmental Consequences

While the CNDDDB shows regional occurrences of these species, no individuals were observed during the habitat assessment of the project site.

The densely wooded slopes at Locations #1 and #3 provide appropriate nesting habitat for the kite. In addition, vineyards, parks, gardens and housing developments provide foraging habitat within the project area.

The placement of retaining walls at Locations #1 and #3 will require cutting back hillside slopes. This would result in the loss of nesting habitat for the kite. Thus, the project will impact habitat for the white-tailed kite.

Post construction, the project will not increase vehicle numbers while the improved sight distances can decrease wildlife mortality from traffic. There would be no additional impacts from operations and maintenance of SR 9 after project completion.

Implementation of the AMMs will avoid impacts on nesting birds and avoid project impacts on individuals.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will delineate potential habitat adjacent to the project footprint as environmentally sensitive areas on project plans and use ESA fencing and wildlife exclusion fencing when appropriate to protect habitat and animals in place. Avoiding construction during the breeding season (spring through summer) is not a feasible avoidance measure. Typical construction schedules run from mid March to mid October and restricting construction to a few months during the season would add undue time and cost burdens to the project. To avoid mortality and minimize reproductive loss, Caltrans would require a work window for clearing, grubbing and tree removal to occur outside the nesting season. Surveys for bird nesting would be done within the BSA through out the nesting season and nesting prevention measures would be implemented. If occupied nests are observed in the BSA, Caltrans will contact CDFG to report occurrences for the agency's database. Caltrans will provide an appropriate buffer between any occupied nest and construction actions.

Long-eared Owl (Asio otus)

The following description was developed from California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of

Birds of Immediate Conservation Concern in California and species account from the California Wildlife Habitat Relations.

This owl occurs in the state year round, although seasonal status varies regionally and it may behave nomadically for unknown reasons. The long-eared owl breeds from February through July, nesting in conifer, oak and riparian woodlands that are either open or are adjacent to foraging sites. The important habitat elements are dense cover for nesting and roosting, suitable nesting platforms and open foraging areas. Long-eared owls have been known to nest in old woodrat and squirrel nests, mistletoe brooms, and natural debris piles in trees, preferring to nest among clumps of trees greater than 30 ft across. Owls forage primarily at night over open ground, including grasslands, meadows, active or fallow agricultural lands and scrub. Population trends for most of the central coast are unclear. Historic declines in California are linked to loss and degradation of breeding and foraging habitat, but nest predation, particularly by species such as ravens, may be the cause of local and regional declines.

Environmental Consequences

While the CNDDDB shows regional occurrences of these species, no individuals were observed during the habitat assessment of the project site. A local resident reported that owls nest annually in a large eucalyptus tree at Location 2. However, the individual could not identify the species.

The densely wooded slopes at Locations #1 and #3 provide the appropriate nesting habitat for long-eared owl. In addition, the roadway clearing, vineyards, parks, gardens and housing developments provide foraging habitat within the project area.

The placement of retaining walls at Locations #1 and #3 will require cutting back hillside slopes. This would result in the loss of nesting habitat for the owl. Thus, the project will impact long-eared owl habitat.

Post construction, the project will not increase vehicle numbers while the improved sight distances can decrease wildlife mortality from traffic. There would be no additional impacts from operations and maintenance of SR 9 after project completion.

Implementation of the AMMs will avoid impacts on nesting birds and avoid project impacts on individuals.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will delineate potential habitat adjacent to the project footprint as environmentally sensitive areas on project plans and use ESA fencing and wildlife exclusion fencing when appropriate to protect habitat and animals in place. Avoiding construction during the breeding season (spring through summer) is not a feasible avoidance measure. Typical construction schedules run from mid March to mid October and restricting construction to a few months during the season would add undue time and cost burdens to the project. To avoid mortality and minimize reproductive loss, Caltrans would require a work window for clearing, grubbing and tree removal to occur outside the nesting season. Surveys for bird nesting would be done within the BSA through out the nesting season and nesting prevention measures would be implemented. If occupied

nests are observed in the BSA, Caltrans will contact CDFG to report occurrences for the agency's database. Caltrans will provide an appropriate buffer between any occupied nest and construction actions. To avoid impacts to night foraging birds, no construction actions will occur before sunrise or after sunset.

*Pallid Bat (*Antrozous pallidus*)*

The following description was developed from Mammalian Species of Special Concern in California and species account from the California Wildlife Habitat Relations.

In California, this species occurs throughout the state in a variety of habitats at elevations up to 9,000 feet. Pallid bats do not migrate and they hibernate during the winter. They stay close to their summer roosts. This species is colonial with typical colonies containing up to 100 bats. Colonies form around March through May and persist until October. In northern California, pallid bats can be found in oak habitat at lower elevations but also use coniferous forests, non-coniferous woodlands, brushy terrain, rocky canyons and open farmland. They seek crevices and select daytime roosting sites that allow them to retreat from view. Pallid bats mate in the fall or winter, but the females do not become pregnant until the spring. They frequently forage in open oak woodland but may feed in forested canyons, on grasslands and other places they can find prey. Prey species tend to be large arthropods including scorpions, crickets, beetles, cicadas, katydids and moths. Pallid bats will feed within 3.7-5.0 miles of their day roost, and have regularly occupied feeding roosts adjacent to foraging areas. Populations of pallid bat appear to be in decline. Among threats to this species are habitat loss and pressures from human induced changes to the landscape. Because the pallid bat will roost on bridges and other manmade structures, they are often targeted for exclusion.

Environmental Consequences

While the CNDDDB shows regional occurrences of pallid bats, no individuals were observed during the habitat assessment of the project site. At potential roosting locations, biologists searched for signs of bat presence such as urine staining of concrete, guano piles and insect parts discarded by feeding individuals.

The woodlands, riparian corridors and clearings at Locations #1, #2 and #3 provide suitable roosting, and foraging habitat for the pallid bat. In particular, a large Douglas fir at Location #1 is potential roosting habitat. Since the project is in the early stages of design, it is unclear if this tree will be removed. The only man-made structure in the BSA is the bridge at Location #3. Biologists did not observe signs of bat presence at these locations.

The placement of retaining walls will require cutting back hillside slopes, which will impact pallid bat habitat.

Post construction, the project will not increase vehicle numbers while the improved sight distances can decrease wildlife mortality from traffic. There would be no additional impacts from operations and maintenance of SR 9 after project completion.

Implementation of the AMMs will avoid impacts on roosting bats and avoid project impacts on individuals.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will delineate potential habitat adjacent to the project footprint as environmentally sensitive areas on project plans and use ESA fencing and wildlife exclusion fencing when appropriate to protect habitat and animals in place. Caltrans will develop an exclusion strategy with the CDFG before project construction. The purpose of this plan is to set a protocol for avoiding take of individuals in the project footprint. To avoid mortality and reproductive loss, Caltrans would require a work window for clearing, grubbing and tree removal. Prior to these actions, surveys for bat roosts would be done within the BSA. If occupied sites are observed in the BSA, Caltrans will contact CDFG to report occurrences for the agency's database. Caltrans will provide an appropriate buffer between any occupied roost and the construction actions. If the occurrence is within the project footprint, Caltrans will contact CDFG to discuss the occurrence and implement the exclusion plan. To avoid impacts to night foraging bats, no construction actions will occur before sunrise or after sunset.

American Badger (Taxidea taxus)

The following description was developed from Mammalian Species of Special Concern in California and species account from the California Wildlife Habitat Relations.

The American badger is not a common species, but it is found throughout the state as a permanent resident. The species tends to be more abundant where there is dry open stages of shrub, woodland or herbaceous communities. Soil must be loose and easily crumbled to create suitable habitat for the badger because it dens in shallow burrows and feeds on burrowing rodents. Prey items include rats, mice, chipmunks, and especially ground squirrels and pocket gophers but badgers are opportunistic carnivores and may include earthworms, birds, eggs, insects and reptiles in their diet. Badgers mate in summer and early fall. An average litter of 2-3 pups are born in March and April. A few females may breed in their first year, but males are not mature sexually until their second year. The American badger is somewhat tolerant of human activities. The major threat to the species is indiscriminate predator control using trapping and persistent poisons.

Environmental Consequences

While the CNDDDB shows regional occurrences of this species, no individuals were observed during the habitat assessment of the project site.

The woodlands, riparian corridors and clearings in the BSA provide suitable denning foraging habitat for each of the badger. The woodlands at Locations #2 and #3 and the clearing at Location #2 have characteristics suitable for badger habitat.

The placement of retaining walls will require cutting back the hillside slopes at Locations #1, #2 and #3, which will impact foraging habitat for badgers.

There will be no project impacts to individual badgers or dens with the implementation of the AMMs.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will delineate potential habitat adjacent to the project footprint as environmentally sensitive areas on project plans and use ESA fencing and wildlife exclusion fencing when appropriate to protect habitat and animals in place. Caltrans will develop a relocation strategy with the CDFG before project construction. The purpose of this plan is to set a protocol for avoiding take of individuals in the project footprint. To avoid mortality and minimize reproductive loss, Caltrans would require a work window for clearing, grubbing and tree removal. Prior to these actions, surveys for badger dens would be done within the BSA. If occupied sites for these species are observed in the BSA, Caltrans will contact CDFG to report occurrences for the agency's database. Caltrans will provide an appropriate buffer between any occupied roost, den or nest and the construction actions. If the occurrence is within the project footprint, Caltrans will contact CDFG to discuss the occurrence and coordinate the relocation plan.

2.3.5. Threatened And Endangered Species

2.3.5.1. Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC), Section 1531, et seq. See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take permit. Section 3 of FESA defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The California Department of Fish and Game (CDFG) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits “take” of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFG. For projects requiring a Biological Opinion under Section 7 of the FESA, CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

California Red-legged Frog

The California red-legged frog (CRLF) is listed as federally threatened and a California species of concern. CRLF use a variety of areas, including various aquatic, riparian and upland habitats (USFWS, 2002). Habitat use is variable. CRLF may complete its life history in a particular habitat, such as a pond that is suitable for all stages. CRLF can also move through multiple habitat types and this dispersal is seasonal. Breeding mostly occurs in still or slow moving waters greater than two foot in depth. Dense shrubby riparian vegetation and emergent vegetation is also an important breeding habitat element. However, CRLF can use less suitable habitat also. CRLF tend to keep in close association with water during dry season, but when winter rains begin, CRLF may move as much as two miles across uplands, independent of any corridors such as creeks, seasonal drainages or wetlands. If water is unavailable, frogs will seek summer habitat such as moist organic or other debris, watering troughs, drains or mammal burrows to stay moist. Threats to the species include habitat loss, fragmentation and modification and introduction of non-native species such as the bullfrog.

Environmental Consequences

Saratoga Creek provides suitable habitat for each of the CRLF's life stages, including slower moving deep waters, emergent vegetation, side pools and riparian woodland with thick, moist leaf litter. A search of the CNDDDB produced an occurrence of CRLF on Saratoga Creek near the eastern edge of Location #3. In addition, the sediment-settling pond at Location 2 may be suitable for breeding habitat. The pond is perennial, deeper than 2 feet, contains emergent vegetation and is adjacent to upland habitat with moist leaf litter. The potential seasonal wetland and spring may also serve as dispersal and upland habitat during summer. The areas temporarily impacted by installation of the retaining walls at Locations #1 and #3 are woodlands with moist, deep leaf litter. This habitat is potential upland habitat for CRLF.

Other areas in the BSA however, do not have the elements for supporting CRLF in any of its life stages. This includes paved surfaces, shoulder backing and maintenance pullouts along the road. In many places, the steep slopes along the verge of SR9 in the project locations are the result of originally cutting back hillsides for SR9. These slopes are sheared outcrops. Because they are so steep they do not collect leaf litter. They do not appear to support suitable upland habitat for CRLF.

Visual assessment surveys for CRLF did not identify any individuals in the BSA. On Saratoga Creek, Pacific chorus frogs were observed in side pools. At the settling pond, bullfrogs were found basking on the shoreline. During the habitat assessment of the pond, over a dozen bullfrogs were observed.

The placement of the retaining walls will require cutting back hillside slopes. As discussed above the slopes do not provide appropriate CRLF habitat. However, above the slope, wooded areas may be suitable upland habitat. However implementation of the AMMs will avoid impacts to CRLF and their habitat.

Post construction, widening of the road will increase sheet flow across the paved surface and increase run-off entering drainages in the project action area. Improvements to the drainage system will minimize the effects of roadway runoff into drainages and

watercourses. The project will not increase vehicle numbers while the improved sight distances can decrease wildlife mortality from traffic. There would be no change in impacts from operations and maintenance of SR 9 after project completion.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will delineate potential habitat adjacent to the project footprint as environmentally sensitive areas on project plans and use ESA fencing and wildlife exclusion fencing when appropriate to protect habitat and animals in place. Caltrans will develop a relocation strategy with the agencies before project construction. The purpose of this plan is to set a protocol for avoiding take of individuals in the project footprint. Caltrans will conduct preconstruction surveys prior to any ground disturbing activities. If CRLF are observed in BSA but not in the project footprint, Caltrans will contact USFWS and CDFG to report occurrences for the agencies' databases. If CRLF are found in the project footprint, Caltrans will contact USFWS and CDFG. Caltrans will work with the agencies to relocate any animals to a suitable location. All work at Locations 2 and 3 would occur between April 15 and October 15 to avoid the dispersal period for CRLF between upland and breeding habitats. In addition to these species-specific measures, this species' habitat would benefit from AMMs developed for the SWPPP, erosion control, spill prevention and construction traffic restrictions.

2.3.6. Invasive Species

2.3.6.1. Regulatory Setting

On February 3, 1999, President 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." Federal Highway Administration guidance issued August 10, 1999 directs the use of the state's noxious weed list to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

2.3.6.2. Affected Environment

There were no invasive species identified within the project sites.

2.3.6.3. Avoidance, Minimization, and/or Mitigation Measures

The Department will not use any species that are on the California list of noxious weeds for erosion control or landscaping. Measures to prevent the spread of noxious or invasive species onto the project sites will be incorporated. These measures include confining vehicle and human traffic to paved areas to the maximum extent practicable, washing all equipment prior to entering the BSA and using gravel or fill from weed free sources. Soil from areas that support and contain invasive species will not be disposed of into areas that support stands of native vegetation.

2.4. NON-RELEVANT TOPICS

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

2.4.1. Human Environment

2.4.1.1. Growth

This project would not foster economic or population growth. The project does not include the construction of additional housing units, nor would it indirectly result in such construction.

2.4.1.2. Farmlands/Timberlands

There are no farmlands or timberland in the project area. The project will not convert prime farmland, unique farmland or farmland of statewide importance to non-agriculture uses. It will not conflict with any existing Williamson Act contract nor will it conflict a Timber Production Zone contract. Therefore, the project will not have an affect on farmlands or timberlands.

2.4.1.3. Community Impacts

Community Character and Cohesion: The project does not involve any changes to the existing use of the facility. The project will not affect lifestyles, neighborhood character or stability of surrounding communities, nor will it divide or disrupt an established community.

Relocation: The project does not involve any changes to the existing use of the facility or the land surrounding the facility; it will not affect existing housing, require the residential improvements, cause the displacement of people or create a demand for additional housing.

Environmental Justice: The project does not involve any changes to the existing use of the facility or the land surrounding the facility; it will not affect minority, low-income, elderly, handicapped, transit-dependent or other specific interest groups. The project will not affect employment, industry or commerce or require the displacement of business or farms; nor will it affect property values, the local tax base or community facilities. The project would not support large commercial or residential development.

2.4.1.4. Traffic and Transportation/Pedestrian and Bicycle Facilities

The project does not involve any changes in the existing use of the facility or the land surrounding the facility. Other than meeting the Purpose and Need of the project, i.e. increasing safety, the project will not affect traffic and circulation, alter present patterns of movement of people and/or goods, create traffic, exceed level of service (LOS) standards, require a detour for bike or pedestrian traffic or result in the alterations to waterborne, rail or air traffic.

The 2008 Santa Clara Countywide Bike Plan does not specifically mention the area of State Route 9 containing the three proposed project locations. The City of Saratoga's Bike Plan does incorporate a portion of SR 9 where sites #2 and #3 are located. This section is where Class 3 roadways accommodate bicycle access. The proposed project would improve these two areas of SR 9 by widening the shoulders, improving sight distance for automobiles and cyclists and improving stop distances for cars.

2.4.2. Physical Environment

2.4.2.1. Hydrology and Floodplain

No encroachment within the Bay or 100-year floodplain would result from the project at locations #1 and #2. Sections of SR9 at location#3 are within the 100-year floodplain but the proposed work will not increase flows into Saratoga Creek.

The project would not deplete groundwater, as it would generate no demand for water supply. It would not substantially alter drainage patterns or create substantial run-off, which would result in flooding on- or off-site. The project would not cause inundation by seiche, tsunami or mudflow. Therefore, the project will not have an affect on hydrology or create floodplain hazards.

The storm drain systems affected by the project would be relocated, removed, adjusted or modified. The storm drain system pipes would be extended and additional drainage inlets would be added if required. Additional drainage systems may be required to accommodate the off-site runoff behind the proposed retaining walls as well as change in existing roadway geometry.

2.4.2.2. Paleontology

The project is not expected to have any paleontological impacts.

2.4.2.3. Air Quality

Regulatory Setting

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), lead (Pb), and sulfur dioxide (SO₂).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve Federal actions to support programs or projects that are not first found to conform to State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels—first, at the regional level and second, at the project level. The proposed project must conform at both levels to be approved.

Regional level conformity in California is concerned with how well the region is meeting the standards set for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), and particulate matter (PM). California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans (RTP) are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the RTP, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization, such as [insert name (MPO or RTPA)] for [insert county/region] and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the RTP is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the proposed project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is “nonattainment” or “maintenance” for carbon monoxide (CO) and/or particulate matter. A region is a “nonattainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as nonattainment areas but have recently met the standard are called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the CO standard to be violated, and in “nonattainment” areas the project must not cause any increase in the number and severity of violations. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

The project is exempt from the requirement of air conformity determination pursuant to Code of Federation Regulations 40 CFR 93.126.

2.4.2.4. Noise

The project would have no traffic noise impact because there will be no increase in capacity as a result of the project.

2.4.2.5. Energy

The project involves no planned use of natural resource beyond fuel and energy needed during construction activities, thus the project would not result in an increase of fuel or energy use in large amounts or in a wasteful manner, an increase in the rate of use of any natural resource or in the substantial depletion of any nonrenewable natural resource. Therefore, the project will not have an effect on energy resources.

2.5. CONSTRUCTION IMPACTS

This section summarizes the construction impacts for the proposed project. The Department is committed to working with the community located within the project

vicinity to address issues that pertain to the construction activities for the Highway 9 Safety Improvement Project. The major components of construction are improving sight distance at the blind curves, upgrading the existing lanes and shoulders, increasing the super elevation to counteract sideway acceleration around curves, installing metal beam guardrails, installing retaining walls and placing warning signs along the corridor.

Construction activities such as setting up temporary K-rail lane closure barriers, establishing one-way traffic control systems, clearing and grubbing vegetation, roadway excavation, cutting back slopes, constructing soil nail walls, roadway improvements, removing temporary K-rail and one-way traffic systems and roadway delineation and rehabilitation will result in increased levels of truck traffic, noise, dust and visual impacts. The impacts from the construction activities would be temporary and can be minimized by implementing various minimization and avoidance measures.

2.5.1. Avoidance, Minimization and/or Mitigation Measures

K-rail will be used for lane closure so that the paved surfaces behind the barriers will provide temporary storage, staging and lay down areas. Placement or removal of K-rail and hauling may require the complete closure of the roadway at the project locations for a brief time. These closures will occur during low-volume traffic hours.

2.5.1.1. Visual

- Unsightly material and equipment storage and staging shall not be visible within the foreground of the highway corridor to the extent feasible. Where such siting is unavoidable, material and equipment shall be visually screened where feasible to minimize visibility from the roadway and nearby sensitive off-road receptors;
- Construction, staging and storage areas shall be screened where feasible by visually opaque screening wherever they will be exposed to public view for extended periods of time;
- Construction activities shall be phased to minimize the duration of disturbance to the shortest feasible time;
- All areas disturbed by construction, staging and storage shall be re-vegetated per Mitigation Measure VM-3, above; and
- Construction activities adjacent to residences shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.

2.5.1.2. Biology

- All construction will occur within the project footprint;
- Additional project related activities including staging, access and detouring will occur within the project footprint;
- Construction will occur during daytime hours and nighttime construction is not anticipated; and
- The contractor will be responsible for identifying and obtaining environmental clearances for additional staging areas outside of the project area.

2.5.1.3. Construction Staging

The project does not require any special staging requirements. There will be no need for special staging roads. Easements will be obtained for the placement of soil nail walls. The Department will use one-way traffic controls and existing lane closures to accomplish construction activities.

2.6. CUMULATIVE IMPACTS

2.6.1. Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7 of the CEQ Regulations.

2.6.2. Related Projects

Actions and projects in the vicinity of the project could theoretically have collectively significant consequences; the impacts of the State Route 9 Safety Improvement Project have been evaluated with other nearby, past, present, and proposed transportation and non-transportation projects.

Various sources were consulted to try and be inclusive of all projects in the study area, but there may be projects that have been overlooked because they were completed, new, small, or only a concept. The sources consulted included: the Department, the County of Santa Clara, and the City of Saratoga.

There are several related projects on SR 9 within and/or outside the project limit or in the immediate vicinity of SR9.

2.6.2.1. Projects on SR 9 (the Department is the Lead Agency)

- SR 9 Soft Barrier Project, post mile (PM) 0.0 - PM 7.4 (within the proposed project limit), to construct a rumble strip² in the middle to create a centerline for safety purpose;
- SR 9 Construct Tie-Back Wall, PM 4.16 (within the proposed project limit), to construct a tie-back retaining wall to stabilize slope;
- SR 9 Pedestrian Improvement Project, PM 7.4 – 11.4 (outside the proposed project limit), to construct retaining walls from Austin Road to Quito Road in Saratoga, to provide continuity of pedestrian pathways along SR 9, to construct asphalt dikes to improve drainage, utility under grounding/relocating. The City of Saratoga is the lead on the project design and construction; and
- SR 9 Highway Maintenance Project, PM 7.4 – 11.05 (outside the proposed project limit), to provide preventive maintenance with slurry seal to roadway surface.

2.6.2.2. Projects in Vicinity

The only major development in the immediate project area is the Mountain Winery. The Mountain Winery holds summer concerts from June to September each year. The outdoor amphitheater at the Mountain Winery has 2,490 seats and is filled up from 60% to 90% depending on the concert. Carpooling is encouraged for concert goers. Because it's a fixed schedule, the traffic volume is high at the time before and after concert.

2.6.3. Potential Cumulative Impacts

The proposed project is within Hillside areas of the Land Use designations under Santa Clara County General Plan. It is the General Plan's policy to limit development and avoid the need for public services and facilities in the Hillside areas. The County General Plan has long emphasized the hillsides surrounding the urbanized area should not be subject to urban levels of development. The General Plan's policy for the Hillside coincides with the Department's Route Concept for SR 9, which is to remain two-lane conventional highway based on the last-approved Route Concept Report (1985). The proposed project would improve the safety of SR 9, but at the same time it will have significant visual impacts under CEQA (discussed in Chapter 3). However, given the limited development permissible in the area and the nature of past, present, and foreseeable future projects evaluated above, no potential cumulative impacts are anticipated in the project area.

² Rumble strips are a road safety feature that alert drivers to potential danger by causing a tactile vibration and audible rumbling, transmitted through the wheels into the car body.

Chapter 3 – California Environmental Quality Act (CEQA) Evaluation

3.1. DETERMINING SIGNIFICANCE UNDER CEQA

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other action required in accordance with NEPA and other applicable Federal laws for this project is being, or has been, carried out by the Department under its assumption of responsibility pursuant to 23 U.S.C. 327. The Department is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or some lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the Department to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

3.2. SIGNIFICANCE OF IMPACTS - CEQA ENVIRONMENTAL CHECKLIST

The CEQA Environmental Significance Checklist (Appendix A) identifies physical, biological, social, and economic factors that might be affected by the proposed project. This checklist is not a National Environmental Policy Act (NEPA) requirement. The findings for the CEQA checklist were determined in consultation with the technical studies prepared for this project listed in Appendix G. The CEQA impact levels include potentially significant impact, less than significant impact with mitigation, less than significant impact, and no impact. In many cases, background studies performed in connection with the project indicate no impacts. A "no impact" reflects this determination.

3.2.1. Less-Than Significant Effects

Please see Appendix A for identification of physical, biological, social and economic factors that would have Less-Than Significant Effects because of the proposed project and Chapter 2 for a discussion of those effects.

3.2.2. Significant And Unavoidable Effects Of The Proposed Project

In section I. AESTHETICS of the CEQA Environmental Significance Checklist (Appendix A) the following questions are asked regarding the potential significance of aesthetic impacts. Answers are provided after each question.

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

No designated scenic vistas were identified within the viewshed of the SR 9 Safety Improvements Project. In general, long or panoramic vistas of the Santa Clara Valley from SR 9 are few and, where they exist, are generally heavily filtered by intervening tree canopies. Views of hillsides and forest within the foreground and middle-ground of the scenic corridor would not experience obstruction due to the project. Alteration of the character and quality of such views is discussed under Criterion 3, below. The project would not have noticeable adverse effects on scenic views from any of the public open spaces within the project viewshed.

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

The project has the potential to damage areas of mature forest within the proposed project right of way adjoining the proposed project structures. However, with recommended Mitigation Measure VM-1 that limit tree removal and grubbing to within 5 feet of the proposed retaining walls, these impacts could be reduced to a less-than-significant level.

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

The introduction of the proposed retaining walls, with all recommended mitigation measures, would still have significant adverse impacts to the visual character and quality of the SR 9 scenic highway corridor.

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

No long-term sources of light or glare would be introduced by the project. With recommended mitigation measures, potential temporary construction lighting impacts could be reduced to less-than-significant levels.

As noted in the Checklist under Question number “c” there would be Potentially Significant Visual Impacts as a result of the project. The proposed retaining walls, even with all recommended mitigation measures, would still have significant adverse impacts. Because of this, question “a” of section XVII. MANDATORY FINDINGS OF SIGNIFICANCE in the CEQA Checklist is also marked as having a Potentially Significant Impact because the visual

impacts of the retaining walls would "...have the potential to degrade the quality of the environment..." Please see Section 2.1.2 regarding Visual Impacts.

3.2.3. Mitigation Measures For Significant Impacts Under CEQA

See section 2.2.5 for the proposed mitigation measures for the significant visual impacts listed above and Appendix D for a copy of the draft environmental commitments list called the Permits, Approvals and Mitigation or (PAM) form.

3.3. CLIMATE CHANGE

3.3.1 Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHG related to human activity that include carbon dioxide (CO₂), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. Assembly Bill 1493 requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the U.S. Environmental Protection Agency (EPA). The waiver was denied by EPA in December 2007. See *California v. Environmental Protection Agency*, 9th Cir. Jul. 25, 2008, No. 08-70011. However, on January 26, 2009, it was announced that EPA will reconsider their decision regarding the denial of California's waiver. On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks which will take effect in 2012. On June 30, 2009 EPA granted California the waiver. California is expected to enforce its standards for 2009 to 2011 and then look to the federal government to implement equivalent standards for 2012 to 2016. The granting of the waiver will also allow California to implement even stronger standards in the future. The state is expected to start developing new standards for the post-2016 model years later this year.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger 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.

Climate change and GHG reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency (EPA) to regulate GHG as a pollutant under the Clean Air Act (Massachusetts vs. Environmental Protection Agency et al., 549 U.S. 497 (2007)). The court ruled that GHG does fit within the Clean Air Act’s definition of a pollutant, and that the EPA does have the authority to regulate GHG. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions.

According to Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable.” See CEQA Guidelines sections 15064(i)(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 in order to make this determination is a difficult if not impossible task.

As part of its supporting documentation for the Draft Scoping Plan, CARB recently released an updated version of the GHG inventory for California (June 26, 2008). Shown below is a graph from that update that shows the total GHG emissions for California for 1990, 2002-2004 average, and 2020 projected if no action is taken.

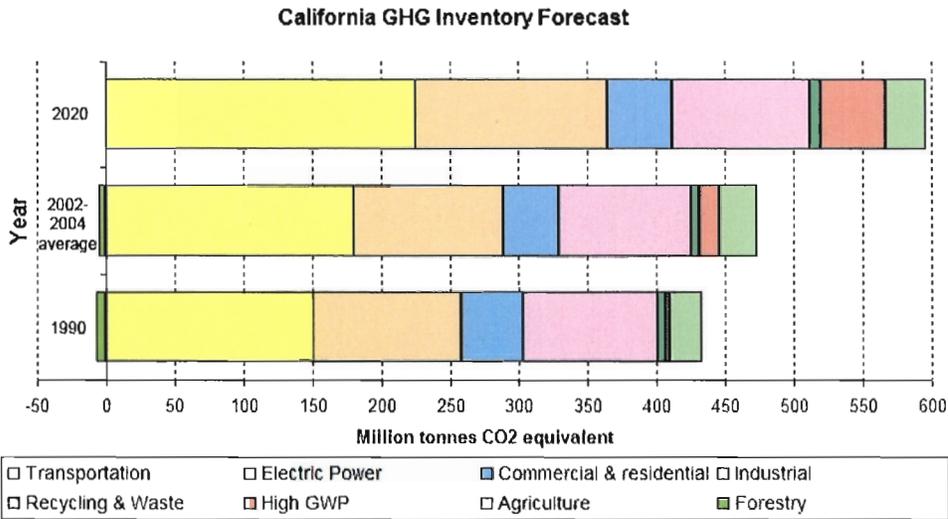


Figure 3.1: California GREENHOUSE GAS Inventory

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

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation (see Climate Action Program at Caltrans (December 2006), Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006. This document can be found at: <http://www.dot.ca.gov/docs/ClimateReport.pdf>

3.4 PROJECT ANALYSIS/CONSTRUCTION EMISSIONS

The project is a safety project that proposes to construct improvements at three spot locations. The improvements include: improving sight distance; upgrading the existing lanes and shoulders; increasing the super-elevation; installing metal beam guardrails; and placing warning signs. To accommodate these improvements, the existing slope would be cut back and soil nail retaining walls would be constructed.

The project does not involve any changes in the existing use of the facility or the land surrounding the facility. Other than meeting the Purpose and Need of the project, i.e. increasing safety, the project will not affect traffic and circulation, alter present patterns of movement of people and/or goods, create traffic, exceed level of service (LOS) standards or require a detour for bike or pedestrian traffic. To the extent that the proposed project leads to a decrease in accidents or other delays on the facility, operational greenhouse gas emissions are expected to decrease.

Greenhouse gas (GHG) emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG 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 will be somewhat reduced by utilizing the construction impact measures identified in Section 2.6. In addition, with innovations such as longer pavement lives and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by providing longer intervals between maintenance and rehabilitation events.

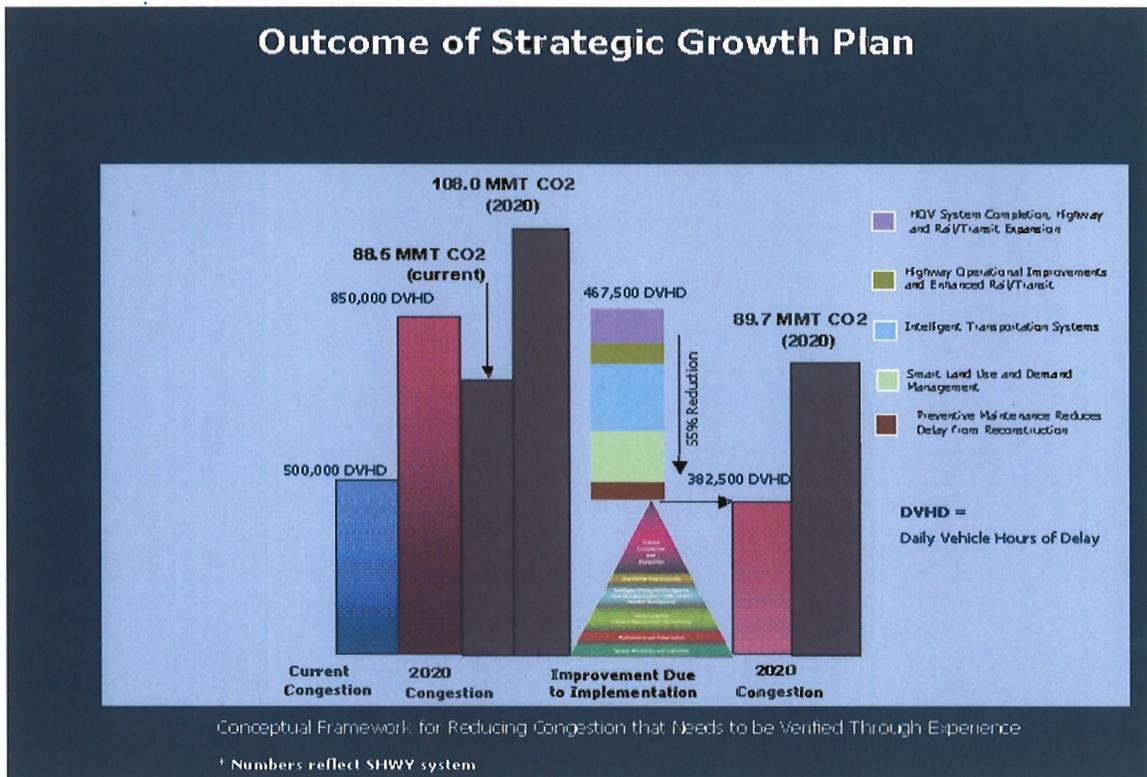
The project involves no planned use of natural resources beyond the fuel and energy needed during construction activities, thus the project would not result in an increase of fuel or energy use in large amounts or in a wasteful manner, an increase in the rate of use of any natural resource or in the substantial depletion of any nonrenewable natural resource. The project will have very little potential affect on climate change. There will also be positive effects from the project, i.e. by reducing accidents, less resources will be expended in emergency responses to accidents and fewer resources will need to be expended in repairing the existing facilities damaged as a result of the accidents, and by decreasing accidents which result in disabilities and fatalities fewer lives will be disrupted thereby decreasing the amount of psychological and material loss to the driving public.

3.5 AB 32 COMPLIANCE

Caltrans continues to be actively involved on the Governor's Climate Action Team as CARB works to implement the Governor's Executive Orders 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 the California Strategic Growth Plan, which is updated each year. Governor Arnold

Schwarzenegger’s Strategic Growth Plan calls for a \$238.6 billion infrastructure improvement program to fortify the state’s transportation system, education, housing, and waterways, including \$100.7 billion in transportation funding through 2016.¹ As shown on the figure below, the Strategic Growth Plan targets a significant decrease in traffic congestion below today’s level and a corresponding reduction in GHG emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together yield the promised reduction in congestion. The Strategic Growth Plan relies on a complete systems approach of a variety of strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements.

Figure 3.2: Outcome of Strategic Growth Plan



As part of the Climate Action Program at Caltrans (December 2006, <http://www.dot.ca.gov/docs/ClimateReport.pdf>), 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 is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting 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 on-going research efforts at universities, by supporting legislative efforts to increase fuel economy, and by its

¹ Governor’s Strategic Growth Plan, Fig. 1 (<http://gov.ca.gov/pdf/gov/CSGP.pdf>)

participation on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by EPA and CARB. Lastly, the use of alternative fuels is

also being considered; the Department is participating in funding for alternative fuel research at the UC Davis.

Table 3.1 summarizes the Department and statewide efforts that Caltrans is implementing in order to reduce GHG emissions. For more detailed information about each strategy, please see Climate Action Program at Caltrans (December 2006); it is available at <http://www.dot.ca.gov/docs/ClimateReport.pdf>

Table 3.1: Climate Change Strategies

Strategy	Program	Partnership		Method/Process	Estimated (MMT)		CO ₂ Savings
		Lead	Agency		2010	2020	
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated	Not Estimated
	Planning Grants	Caltrans	Local regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	0.975	7.8	
Operational Improvements & Intelligent System Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	.007	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	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CARB, CEC	CalEPA,	Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of Services	General	Fleet Replacement	0.0045	0.0065	

				B20			0.45
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team	B100	Energy Conservation Opportunities		0.117	.0225
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix		1.2	3.6
				25% fly ash cement mix		.36	
				> 50% fly ash/slag mix			
Goods Movement	Office of Goods Movement	Cal EPA, CARB, BT&H, MPOs		Goods Movement Action Plan		Not Estimated	Not Estimated
Total						2.72	18.67

Chapter 4 – Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of the environmental documentation, the level of analysis, 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 written communications (letters and emails). This chapter summarizes the results of the Department's efforts to fully identify, address and resolve project-related issues through early and continuing coordination.

4.1. PROJECT HISTORY

The Department's Total Quality Management Team (Team) originated the monitoring process for cross-centerline accidents on two- and three-lane undivided highways in 1995. It was created to investigate the concentration of cross-centerline accidents. The Team concluded that traditional methods for identifying cross-centerline accidents were not adequate and, therefore, required improvement. After extensive evaluations, the Team determined that an emphasis should be placed on early action to eliminate or minimize emerging safety problems. To accomplish this, the Team recommended that a monitoring program designed specifically to focus on reducing cross-centerline accidents on two- and three-lane roads be instituted. As a result, the "Two- and Three-Lane Safety Monitoring" program was created.

The "Two- and Three-Lane Safety Monitoring" program identified SR 9 among others as a facility with high concentration of cross-centerline accidents during the study period of October 1, 2000 to September 30, 2003. On May 28, 2004, the Office of Traffic of the Department District 4 submitted a list of candidate major collision reduction improvements to the Department's Headquarters Office of Traffic Safety program coordinator based on results from the "Two- and Three-Lane Safety Monitoring" program. SR 9 Safety Improvements Project was included on this list. The Department's Headquarters approved the SR 9 Safety Improvements Project in a letter dated June 21, 2004. Subsequently, the project funding was reserved through the Safety Improvements Category (201.010) of the State Highway Operational Protection Program (SHOPP) when the Project Study Report (PSR) was approved on March 30, 2007.

4.2. PROJECT DEVELOPMENT TEAM

The Project Development Team (PDT) is comprised of the Project Manager, and representatives from the various functional units that are involved in the project development process. This includes but is not limited to representatives from the project design group, environmental, traffic, construction, surveys, right-of-way, and representatives from various local, and regional agencies.

The PDT advises and assists the Project Manager in directing the course of studies, makes recommendations to the Project Manager and district management and works to carry out the project work plan. Members of the PDT participate in major meetings, public hearings/meetings, and community involvement. The PDT is responsible for the conduct of studies and accumulation of data throughout the project development to the Plans, Specifications, and Estimates phase.

4.3. AGENCY CONSULTATION

Agencies formally or informally contacted and consulted during the preparation of this environmental document include but are not limited to the following: Santa Clara County and the City of Saratoga.

A Notice of Preparation (NOP) was filed with the State Clearinghouse in April 2009. The Department received comments from California Regional Water Quality Control Board and the Santa Clara Transportation Authority on the NOP.

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Santa Clara County Library
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APPENDICES

APPENDICES A-1
Appendix A. CEQA Checklist..... A-3
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c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

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?

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

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

d) Expose sensitive receptors to substantial pollutant concentrations?

e) Create objectionable odors affecting a substantial number of people?

IV. BIOLOGICAL RESOURCES: Would the project:

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

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

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

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

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

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

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

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

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

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

VI. GEOLOGY AND SOILS: Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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. 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 checked="" type="checkbox"/> | <input 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?

VIII. HYDROLOGY AND WATER QUALITY:

Would the project:

a) Violate any water quality standards or waste discharge requirements?

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

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

f) Otherwise substantially degrade water quality?

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

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

j) Inundation by seiche, tsunami, or mudflow?

IX. 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"/> |

X. 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"/> |

XI. 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?

) 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?

XII. POPULATION AND HOUSING: Would the project:

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

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

XIII. PUBLIC SERVICES:

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

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

XIV. RECREATION:

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

XV. TRANSPORTATION/TRAFFIC: Would the project:

- a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
- b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?
- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e) Result in inadequate emergency access?
- f) Result in inadequate parking capacity?
- g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

XVI. UTILITIES AND SERVICE SYSTEMS: Would the project:

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

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider 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"/> |

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

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

Appendix B. Section 4(f) De Minimis Finding

**State Route 9 Safety Improvement Project:
At Three Spot Locations**

**DRAFT
SECTION 4(f) *DE MINIMIS*
FINDING**

Santa Clara County, California

04-SCL-09 (PM 2.5/7.0)

EA 04-2A4300

December 2009

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.C. 327.

Approved By: Gregory C. McConnell

Date: 11/19/09

Gregory C. McConnell, Senior Environmental Planner
Environmental Analysis
Caltrans, District 4



Introduction

The California Department of Transportation (Caltrans) proposes to construct improvements on State Route 9 (SR 9) at three spot locations to increase safety and improve sight distance by constructing retaining walls, upgrading the existing lanes and shoulders, increasing the super-elevation, installing metal beam guardrails, and placing warning signs. These safety improvements at one location (#3 at post mile 6.7 to 7.0) will require a sliver of property that is currently part of the Hakone Gardens. The Hakone Gardens is a publicly owned recreation land, and is subject to provisions of Section 4(f) of the Department of Transportation Act (1966). Figure 1 and 2 depict the proposed project location.

In August 2005, President Bush signed into law a federal transportation reauthorization bill called the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Two sections of the law allow Caltrans to assume the Federal Highway Administration's (FHWA) responsibilities under the National Environmental Policy Act (NEPA) and other federal environmental laws. This NEPA assignment became effective July 1, 2007, and Caltrans is the federal lead agency for the proposed project.

Section 4(F) *De Minimis* Impact Evaluation Requirements

SAFETEA-LU Section 6009(a) amends existing 4(f) legislation to allow the U.S. Department of Transportation (DOT) to determine that certain uses of 4(f) land will have no adverse effect on the protected resource. As the NEPA-delegated federal lead agency, Caltrans must conduct the evaluation of potential Section 4(f) impacts under the proposed project.

De minimis impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges 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, 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 adverse effects.

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

Project Description

SR 9 Safety Improvement Project proposes to increase safety and improve sight distance, by installing retaining walls, upgrading the existing lanes and shoulders, increasing the super-elevation, installing metal beam guardrails, and placing warning signs at three spot locations between post mile 2.5 and post mile 7.0 in and near the City of Saratoga in Santa Clara County.

SR 9 is a two-lane undivided conventional highway that runs north/south and winds through the Santa Cruz Mountains connecting SR 17 with the Saratoga Gap Open Space Preserve. Within the project limits, SR 9 is designated as an official State Scenic Highway and is bordered by hills on one side and valleys on the other side. The existing facility within project limits consists of two approximately 11-foot lanes, separated by a solid double-yellow stripe, and outside paved shoulders that vary from less than one foot to more than eight feet in width. At many locations, there are steep hills who's toe-of-slope abut the existing edge of shoulder.

Description of the Section 4(f) Resource

The Hakone Gardens, which borders SR 9 on the north, are owned by the City of Saratoga and managed by Hakone Foundation, a tax-exempt non-profit organization. The Hakone Gardens is one of the oldest surviving Japanese-style residential gardens in the Western Hemisphere, and draws 40,000 visitors a year.

Hakone Gardens is significant as an outstanding example of traditional Japanese landscape and architectural design that was imported into the United States during the Meiji Period and transplanted to California during the late 19th and 20th centuries. It is a significant designed landscape that contains multiple contributing buildings, structures, and objects. It is a 4(f) property both as an historic site and as parkland.

Potential Impacts to Section 4(f) Lands in Project Vicinity

The proposed safety improvement project will require a small strip of property (approximately 4,792 square feet) at the Hakone Gardens (Assessor Parcel Number (APN): 517-36-009), see Figure 3 and 4, Location 3. The small strip is needed to construct a retaining wall (5 to 30 feet in height and 215 feet in length) and widen the shoulder to a full-width shoulder to improve the sight distance and reduce accidents at this location.

Measures to minimize harm include carving and staining the retaining walls to give them the appearance of indigenous rock and constructing the retaining walls without gutters and parapet.

The park users do not use this section of the recreation land. None of the existing recreational uses or access would be affected by the project construction or operation. There would be some disruption related to construction activities adjacent to the Hakone Gardens; however, these impacts would be temporary in nature and would cease upon project completion. There would also be some temporary noise impacts resulting from the operation of construction equipment and vehicles; however, these impacts would cease upon completion of the proposed project as well. None of the temporary construction-related impacts would adversely affect the activities, features, or attributes of the Hakone Gardens.

Discussion of Coordination Activities

Caltrans has consulted with the City of Saratoga (City) to seek their concurrence that the proposed project would have de minimis impacts on the Hakone Gardens. In May 2009, Caltrans submitted a letter to the City requesting their preliminary concurrence with Caltrans' evaluation that the proposed project would have de minimis impacts on the Hakone Gardens.

The City provided their preliminary concurrence with this evaluation in a letter dated July 21, 2009. Both letters are included as attachments to this evaluation.

The public is being offered the opportunity to comment on this Section 4(f) *De Minimis* Finding in conjunction with the comment period for the Draft Environmental Impact Report/Environmental Assessment for the State Route Safety Improvement Project. A public notice was published in the San Jose Mercury News on _____, 2009 for the Draft Environmental Impact Report/Environmental Assessment and Section 4(f) *De Minimis* Finding.

After the comment period for the Draft Environmental Impact Report/Environmental Assessment and Section 4(f) *De Minimis* Finding the Department will make a final decision based on the information presented above and the public comments as to whether the effects of this proposed safety improvement project on the Hakone Gardens constitute a *de minimis* Section 4(f) impact and the requirements of 23 USC 138 and 149 USC 303 have been satisfied.

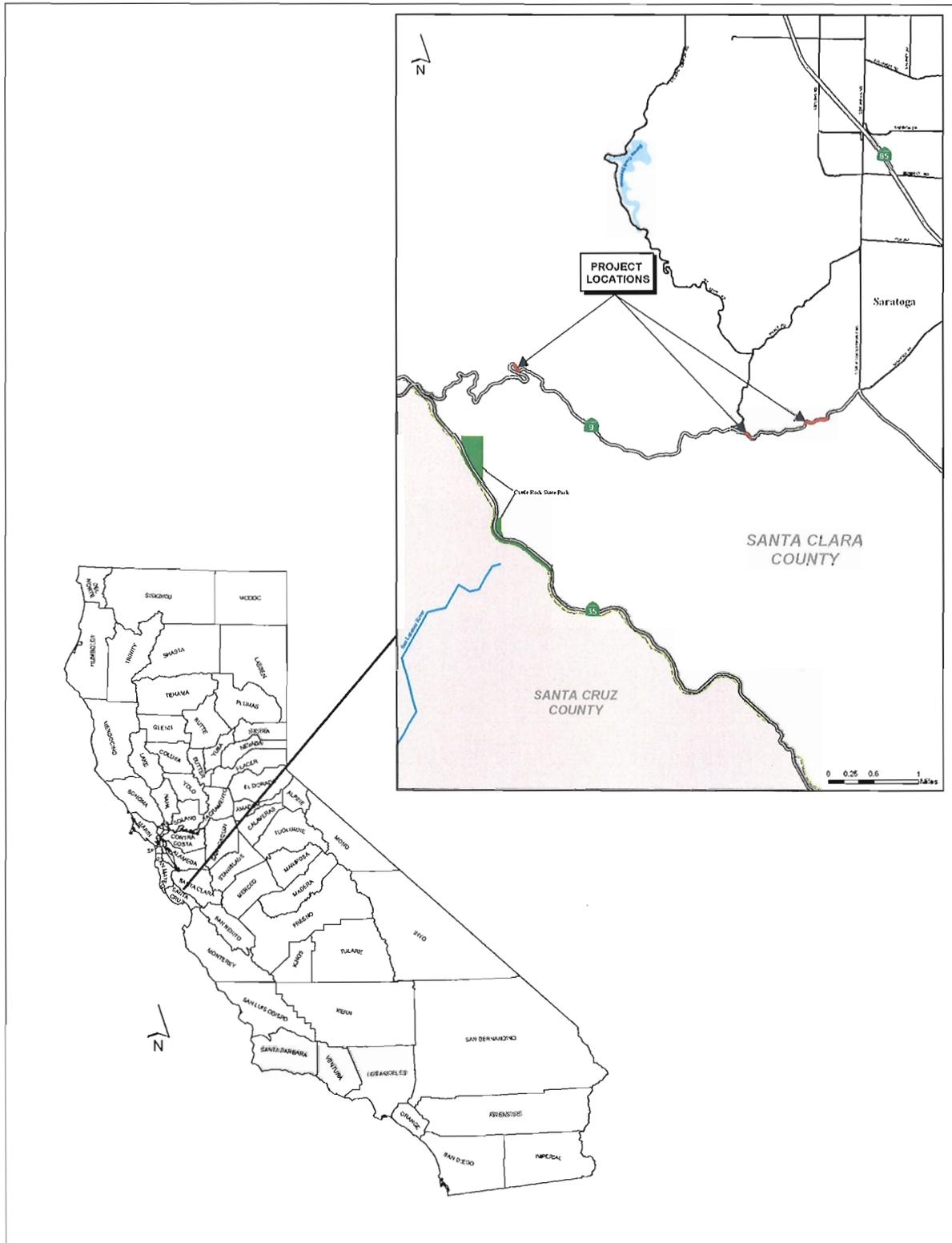


Figure 1: Project Location Map

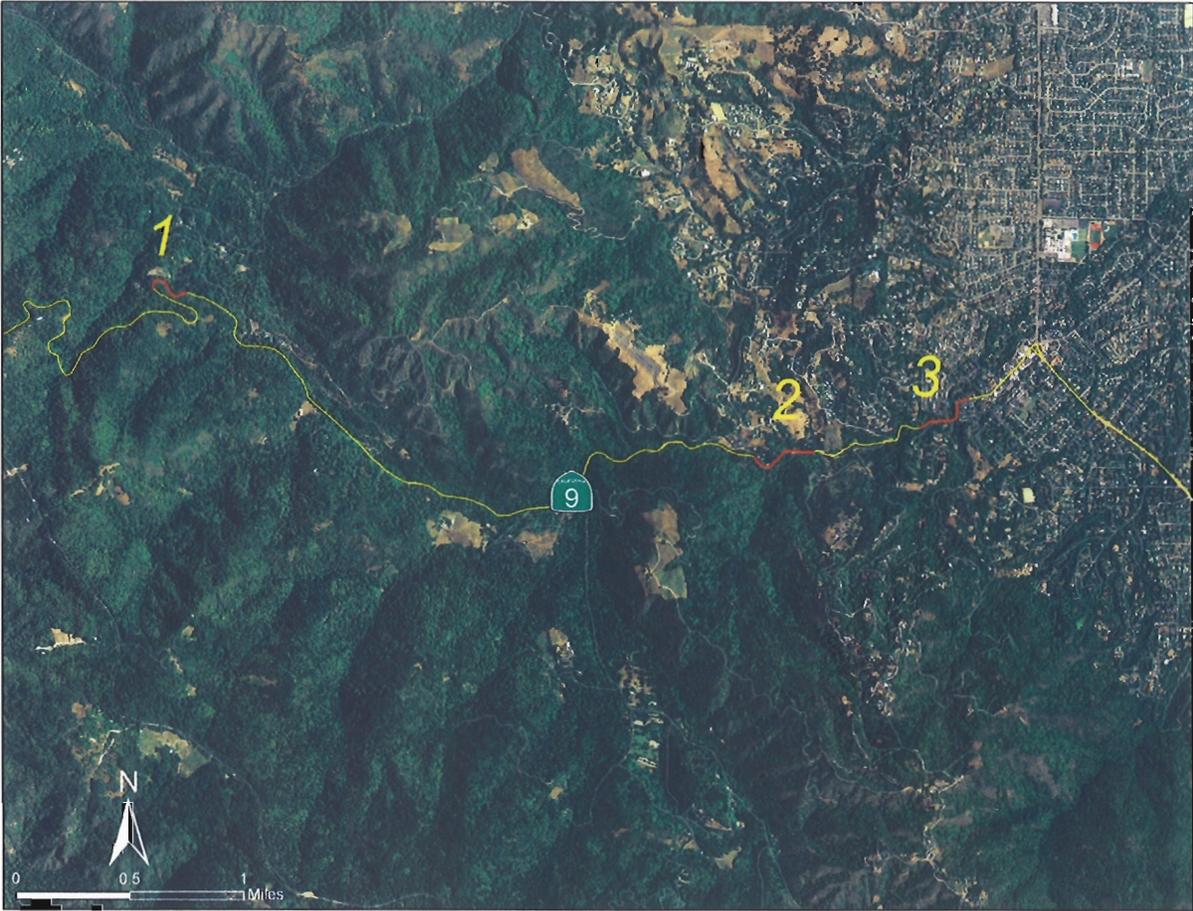


Figure 2: 3 Project Vicinity Map – 3 Locations

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-6355
FAX (510) 622-5460
TTY 711



*Flex your power!
Be energy efficient!*

May 1, 2009

Mr. John Cherbone
Public Works Director
City of Saratoga
13777 Fruitvale Ave
Saratoga, CA 95070

Subject: State Route 9 Safety Improvement Project Draft Section 4(F) *De Minimis*
Finding

Dear Mr. Cherbone:

As we recently discussed, the Department of Transportation (Department) is requesting the City of Saratoga's preliminary concurrence with the above referenced document.

The Department is proposing improvements on State Route 9 (SR 9) at three spot locations to increase safety and improve sight distance by constructing retaining walls, upgrading the existing lanes and shoulders, increasing the super-elevation, installing metal beam guardrails, and placing warning signs. These safety improvements at one location will require a sliver of property that is currently part of the Hakone Gardens owned by the City of Saratoga. The Hakone Gardens is a publicly owned recreation land, and is subject to provisions of Section 4(f) of the Department of Transportation Act (1966).

The Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU) Section 6009(a) amends existing 4(f) legislation to allow the U.S. Department of Transportation (DOT) to determine that certain uses of 4(f) land will have no adverse effect on the protected resource. As the NEPA-delegated federal lead agency, the Department must conduct the evaluation of potential Section 4(f) impacts under the proposed project.

De Minimis impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges 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).

The Hakone Gardens users do not use the required sliver of the recreation land. None of the existing recreational uses or access would be affected by the project construction or operation. The Draft Section 4(F) *De Minimis* Finding will be circulated with the environmental document

"Caltrans improves mobility across California"

Mr. John Cherbone
May 1, 2009
Page 2

for the project during which time the public will be afforded the opportunity for review and comment.

The attached Draft Section 4(F) *De Minimis* Finding explains the proposed project and *De Minimis* Finding in further detail. Subsequent to the public circulation of the Department will request your concurrence on the final Section 4(F) *De Minimis* Finding and then make our final determination. While it is not technically required that the City provide written preliminary concurrence to be circulated with the Draft Section 4(F) *De Minimis* Finding, we believe it would be beneficial for the public.

If you have any questions or would like to set up a meeting to discuss this matter, please contact me at (510) 286-6355.

Sincerely,


NICK SALEH
Regional Project Manager
Office of Project Management South

Enclosure

"Caltrans improves mobility across California"

Figure 5: Letter to City of Saratoga

RECEIVED

JUL 27 2009



Incorporated October 22, 1956

CITY OF SARATOGA

13777 FRUITVALE AVENUE • SARATOGA, CALIFORNIA 95070 • (408) 868-1200

COUNCIL MEMBERS:

Bill Hunter
Kathleen King
Susie Nagpal
Howard Miller
Chuck Page

July 21, 2009

Nick Saleh
Regional Project Manager
Project Management -South

RE:

Dear Mr. Saleh:

This letter illustrates that the City concurs to the preliminary 4(F) De Minimis Finding for State Route 9 Safety Improvement Project.

Should you have any questions about this, please give me a call at (408) 868-1241.

Sincerely,

A handwritten signature in black ink that reads "John Cherbone".

John Cherbone
Public Works Director
City of Saratoga
jcherbone@saratoga.ca.us

Figure 5: Letter from City of Saratoga

Appendix C. Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086



*Flex your power!
Be energy efficient!*

August 25, 2009

TITLE VI POLICY STATEMENT

The California State 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, 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.


RANDELL H. IWASAKI
Director

"Caltrans improves mobility across California"

Appendix D. Minimization and/or Mitigation Summary

SUMMARY OF REQUIRED PERMITS AND ENVIRONMENTAL COMMITMENT -PS&E PHASE

TO: Nick Saleh _____ PROJECT MANAGER: _____ Date: 9/1/2009
 ATTN: Jasvir Singh _____ PROJECT ENGINEER: _____ CO. RTE. PM.: SCL-09-2.5/7.0
 DESIGN OFFICE: _____ EA 2A4300

Below is a summary of the required permits, and environmental commitments that must be incorporated into the PS&E, for this project. Please contact Sheryl M. Garcia @ (510) 286-5611 for further information.

	Ref.	NSSP Y/N	Responsible Staff	Timing	Action Taken	Date	
PERMITS AND AGREEMENTS	CDFG 1601/03 Streambed Alteration Agreement	1602	Biology	PS&E			
	BCDC: Bay Fill Permit						
	BCDC: Pub. Access Review						
	Coastal Dev. Permit: County						
	Coastal Dev. Permit: State						
	State Lands Lease Agreement						
	RWQCB: NPDES	402		Office of Water Quality	PS&P		
	RWQCB: Water Qual. Cert.	401		Office of Water Quality	PS&E		
	Endangered Species Act ¹						
	USACOF 404: Nationwide						
	USACOF 404: Individual						
	USACOE Section 10 Permit						
	USCG Section 9 Permit						
	Water Quality						
	Construction activities will disturb 2.61 acres of soil area, add 0.32 acre of new impervious pavement and rework 1.59 acres of existing pavement. Sedimentation from disturbed soil areas could significantly degrade the quality of receiving waters			Office of Water Quality	Construction	Construction Site Best Management Practices (BMP) for this project will include soil stabilization practices, sediment control practices, tracking control practices, wind erosion control and non-stormwater controls	
	After construction general pollutants such as sediment and heavy metals could also degrade the water quality in the receiving waters			Office of Water Quality	Construction	Construction Site Best Management Practices (BMP) for this project will include waste management and material pollution controls.	
	Pollutants from construction activities may impact a potential seasonal wetland			Office of Water Quality	PS&E	A SWPPP will be implemented prior to construction to avoid and minimize discharges into the potential seasonal wetland. This is a condition of the CWA 401 permit	
	Geology						
	Rockfall, debris flow and slope stability may be potential impacts associated with the proposed project				PS&E	Exploration will be necessary to determine soil types and strengths and structural conditions of the geology. Soil borings, rock coring, cone penetrometry studies and geophysical studies will be incorporated in the exploration process. Laboratory testing may be required to determine soil strength, permeability, moisture content and grain size.	
	The alignment is within one mile of the historically active San Andreas Fault zone				PS&E	Seismic refraction at each site will help determine the excavatability of the subsurface materials	
Visual/Landscape							

ENVIRONMENTAL COMMITMENTS	Ref.	NSSP Y/N	Responsible Staff	Timing	Action Taken	Date
			Office of Landscape Architecture	Construction	Minimization of existing tree and shrub removal to the greatest possible extent. The limit of work shall be kept to the minimum possible footprint, not to exceed 5 feet from the edge of retaining wall. Clearing and grubbing is to occur no farther than five feet from the edge of the retaining wall. Existing vegetation outside of clearing and grubbing limits shall be protected from the contractor's operations, equipment, and materials storage. Tree trimming by the contractor shall be limited to that required in order to provide a clear work area. High visibility temporary fencing, if feasible, shall be placed around the area where significant trees or other desirable vegetation are to be protected prior to the commencement of wall construction. All trees to be removed shall be marked in the field by the Contractor and approved by the Resident Engineer prior to removal. As far as practicable, design exceptions shall be implemented to avoid removal of significant existing vegetation.	
			Office of Landscape Architecture	Construction	Replacement of trees and shrubs at Location 2 shall be in place, where feasible. Tree replacement planting, including large-container plantings, may be implemented in other locations if appropriate to mitigate for major loss of tree canopy, as determined by the project landscape architect. All disturbed areas of native vegetation shall be replaced with similar locally-native vegetation at a minimum replacement ratio to be determined by Project Biologists. Required mitigation planting shall be funded through the parent roadway contract, programmed and completed as a separate contract within two years of completion of all roadwork.	
			Office of Landscape Architecture	Design	Use appropriate context-sensitive wall texture and color treatments to minimize contrast with the existing natural and/or historic setting. All walls would be treated with color and texture to reduce reflectivity of retaining walls visible from the valley floor viewshed. Employ integral coloring in bottom barrier portion of upslope retaining walls to reduce overall color contrast of the walls. Wall and barrier texture treatments shall be coordinated and carry consistent themes throughout the corridor.	
			Office of Landscape Architecture	Construction	Unightly material and equipment storage and staging shall not be visible within the foreground of the highway corridor to the extent feasible. Where such siting is unavoidable, material and equipment shall be visually screened where feasible to minimize visibility from the roadway and nearby sensitive off-road receptors. Construction, staging, and storage areas shall be screened where feasible by visually opaque screening wherever they will be exposed to public view for extended periods of time. Construction activities shall be phased to minimize the duration of disturbance to the shortest feasible time. All areas disturbed by construction, staging and storage shall be re-vegetated when feasible. Construction activities adjacent to residences shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed. Construction activities shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.	
<p>A copy of the project PS&E must be sent to Environmental for review before finalization.</p> <p><input type="checkbox"/> Attachments</p>						
OFFICE CHIEF OF ENVIRONMENTAL PLANNING		Apr 04				

Appendix E. List of Technical Studies

The studies and reports that provided technical information for this document are available for review at Caltrans District 4 Office, 111 Grand Ave, Oakland, California. The following reports were prepared specifically for this report.

Archaeological Survey Report: Three Spot Safety Improvements on State Route 9, Near the City of Saratoga, Santa Clara County, California, Caltrans District 4 Office of Cultural Resources, June 2009.

District Preliminary Geotechnical Report: Highway 9 Sight Improvement Project, Santa Clara – Route 9 – PM 2.5/7.0, Caltrans District 4 Office of Geotechnical Design – West B, May 2009.

Historic Property Survey Report, Caltrans District 4 Office of Cultural Resources, June 2009.

Historic Resources Evaluation Report For the SCL-09 Three Spot Locations Improvement Project Between PM 2.5 and 7.0 in Santa Clara County, Caltrans District 4 Office of Cultural Resources, June 2009.

Initial Site Assessment, Caltrans District 4 Office of Environmental Engineering Hazardous Waste, November 2009.

Location Hydraulic Study/Floodplain Assessment, Caltrans District 4 Office of Engineering Services II-Hydraulics, 5/7/2009.

Natural Environment Study: Santa Clara State Route 9 Safety Improvements, Caltrans District 4 Office of Biology, July 2009.

Water Quality Report: SCL 9, Three Spot Safety Improvements on State Route 9, Caltrans District 4 Office of Water Quality, July 2009.

Visual Impact Assessment: State Route 9 Safety Improvements Project, Prepared by Parsons, Brinckerhoff, Quade and Douglas, William Kanemoto and Associates and Merrill Morris Partners for Caltrans District 4 Office of Landscape Architecture, April 2009.