

Tulare Expressway

On State Route 65 in Lindsay from Hermosa Street to south of
Avenue 300 on State Route 245

06-TUL-65-PM 29.5/R38.3

06-TUL-245-PM 0.0/0.5

Project EA 06-430800

Project ID 06-0000-0426

SCH# 2003111011

Draft Environmental Impact Report/ Environmental Assessment



Prepared by the
State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by the California Department of Transportation under its assumption of responsibility pursuant to 23 U.S. Code 327.

September 2012



General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, has prepared this draft environmental impact report/environmental assessment that examines the potential environmental impacts of alternatives being considered for the proposed project in Tulare 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, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

What should you do?

- Please read this document. Additional copies of this document as well as the technical studies are available for review at the Caltrans District 6 office, 1352 W. Olive Avenue, Fresno, CA 93728; Tulare County Public Library, Exeter Branch Library, 230 E. Chestnut Avenue, Exeter, CA 93221; and the Tulare County Public Library, Lindsay Branch Library, 157 N. Mirage Street, Lindsay, CA 93247. The document can also be accessed electronically at the following website:
<http://www.dot.ca.gov/dist6/factsheets/index.htm>
- Attend the public information meeting or public hearing on ~~October 9, 2012~~ (**Rescheduled to Thursday, November 8, 2012**)
- We welcome your comments. If you have any concerns about the proposed project, please attend the public information meeting or send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:
Kelly Hobbs, Senior Environmental Planner
Sierra Pacific Environmental Analysis Branch
California Department of Transportation
855 M Street, Suite 200
Fresno, CA 93721
- Submit comments via email to: kelly_hobbs@dot.ca.gov.
- Submit comments by the deadline: ~~November 13, 2012~~ (**Extended to November 30, 2012**)

What happens next?

After comments are received from the public and reviewing agencies, Caltrans, 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, Caltrans could design and build all or part of the project.

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Kelly Hobbs, Sierra Pacific Environmental Analysis Branch, California Department of Transportation, 855 M Street, Suite 200, Fresno, CA 93721; (559) 445-5286 Voice, or use the California Relay Service TTY number, (559) 488-4066 or 711.

SCH# 2003110011
06-TUL-65-PM 29.5/R38.3
06-TUL-245-PM 0.0/0.5
Project ID 06-0000-426

Realign State Route 65 (post miles 29.5 to R38.3) and construct a two-lane expressway on a four-lane right-of-way from Hermosa Street in Lindsay to Avenue 300 on State Route 245 (post miles 0.0 to 0.5) northeast of Exeter

**DRAFT ENVIRONMENTAL IMPACT REPORT
/ENVIRONMENTAL ASSESSMENT**

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C) and 23 U.S. Code 327, and 49 U.S. Code 303

THE STATE OF CALIFORNIA
Department of Transportation

9/17/12
Date of Approval


Jennifer H. Taylor, Office Chief South
Central Region Environmental Division
California Department of Transportation
National Environmental Policy Act Lead Agency

9/18/12
Date of Approval


Christine Cox-Kovacevich, Chief
Central Region Environmental Division
California Department of Transportation
California Environmental Quality Act Lead Agency



Summary

Effective July 1, 2007, the California Department of Transportation (Caltrans) has been assigned environmental review and consultation responsibilities under the National Environmental Policy Act pursuant to 23 U.S. Code 327. Caltrans is also the lead agency for this project under the California Environmental Quality Act.

The California Department of Transportation (Caltrans), in cooperation with the Tulare County Association of Governments, proposes to realign State Route 65 in Tulare County from Hermosa Street in Lindsay to State Route 198 northeast of Exeter. The total length of the project would be about 9.3 miles, including about 0.5 mile of transition improvements on State Route 245. The project proposes construction of a two-lane expressway that can be expanded to a four-lane expressway as funding becomes available and traffic volumes increase. The proposed project includes frontage roads, railroad overhead crossings, new bridges, controlled access, and utility relocations.

Two build alternatives and a No-Build Alternative are being considered. Both build alternatives would bypass the city of Exeter and realign State Route 65 to the east, closer to Spruce Avenue (Road 204). Both new alignments would parallel Spruce Avenue (Road 204); segments of Spruce Avenue (Road 204) would become frontage road.

The project would be built in four phases as funding becomes available. The phases would begin and end at the same general locations:

- Phase 1—Hermosa Street to Avenue 244
- Phase 2—Avenue 244 to Avenue 268 (Myer Avenue)
- Phase 3—Avenue 268 (Myer Avenue) to Avenue 280 (Rocky Hill Drive)
- Phase 4—Avenue 280 (Rocky Hill Drive) to south of Avenue 300 on State Route 245

Under a Memorandum of Agreement with Tulare County, Road 244, Road 268, and Road 280 would be used as a temporary connection between the new alignment and existing State Route 65 until the subsequent phases would be constructed.

The California Highway Commission, now the California Transportation Commission, adopted a proposed state highway between Avenue 288 (Hermosa Street) in Lindsay and Avenue 384, 10 miles north of Avenue 376 (the old State Route 131) on January 25, 1962. Therefore, no new route adoption would be required for the project because the proposed alternatives are within the alignments of the route adoption. Although the

existing route adoption predated the California Environmental Quality Act and the National Environmental Policy Act, this environmental document addresses both statutes.

The proposed project would be funded from the State Transportation Improvement Program/Regional Transportation Improvement Program (Program Code 075.600) with Phase 1 construction scheduled in fiscal year 2018/19. It is included in Tulare County's 2011 Regional Transportation Improvement Project as a financially constrained project and as a four-lane phased project with construction of the first phase beginning in 2019. The State Route 65/Spruce Avenue (Road 204) widening to four lanes between State Route 137 and State Route 198 is listed as a Measure R project in the Tulare County Expenditure Plan.

Overview of Project Area

State Route 65 is a north-south component of the Tulare County road system and was adopted into the California Highway System in 1933. It is also classified as a National Highway System route that connects State Route 99 in Kern County to State Route 198 east of Visalia in Tulare County. Along the way, as State Route 65 parallels the Sierra Nevada foothills to the east, it links the cities of Porterville, Lindsay, Exeter, Woodlake, Visalia, as well as the communities of Ducor and Terra Bella.

From its beginning at State Route 99 in Kern County, State Route 65 follows a general north-northeast alignment until reaching the project area. After passing Hermosa Avenue in Lindsay, the route turns to west and merges with east-west State Route 137 for about 1.5 miles before turning north again. From State Route 137, existing State Route 65 travels north until ending at State Route 198. State Route 65 north of State Route 137 is also known as Kaweah Avenue or Road 196.

Currently, this segment of State Route 65 passes through the city of Exeter. The proposed realignment would bypass the city and move the route east to parallel the Spruce Avenue (Road 204) alignment. The proposed realignment would cross the Friant-Kern Canal on existing Spruce Avenue (Road 204) and connect with State Route 245 (Road 204) north of State Route 198.

The project corridor parallels the Sierra Nevada foothills east of Exeter where the surrounding landscape is primarily dominated by agriculture. Residences and retail businesses, however, can be found at the beginning of the project in Lindsay and are also scattered along Spruce Avenue (Road 204). Also along Spruce Avenue (Road 204) is the community of Tooleville, several large agriculture-related businesses, a federal wastewater treatment plant, farmhouses, the Friant-Kern Canal, and two railroads.

Purpose and Need

The following is the purpose of the proposed project:

- Provide route continuity
- Increase the capacity for interregional traffic
- Improve safety
- Meet forecasted traffic volume

The project is needed to provide a continuous expressway throughout the corridor to support an uninterrupted flow of traffic. State Route 65 south of Hermosa Street in Lindsay is classified as an expressway. The route ends at State Route 198, also classified as an expressway. An expressway is a highway with controlled access (no driveways connect with the highway and the number of intersections is limited).

Existing State Route 65 does not currently provide direct access to State Route 245 (Road 204) for traffic wishing to continue northbound. State Route 245 extends north of State Route 198 on the Spruce Avenue (Road 204) alignment. Currently, northbound traffic must turn east at the intersection of State Route 65 and State Route 198, travel for about 1 mile to the intersection of State Route 245 (Road 204) and State Route 198, enter a left-hand turn lane and wait for the signal allowing a left-hand turn.

The existing State Route 65 alignment passes through the eastern portion of the city of Exeter, resulting in traffic flow interruptions as local traffic enters and leaves the highway at driveways and intersections. Spruce Avenue (Road 204) is often used as an alternative to State Route 65 to bypass traffic flow interruptions in Exeter. This has resulted in a higher than average accident rate on Spruce Avenue (State Route 245/Road 204) than similar roadways in the state.

The efficient transportation of goods is critical to the economic health of the region; trucks make up 14 percent of the corridor traffic. The existing State Route 65 roadway is deteriorating due to age and heavy use. Future levels of service are projected to degrade (break down or decay) with the existing two-lane configuration.

This project is compatible with the concepts of the San Joaquin Valley Blueprint (SJVB), which was initiated in 2005 by eight Regional Transportation Planning Agencies as a planning process used to guide growth in the San Joaquin Valley over the next 50 years. Traffic volumes within the project area are anticipated to increase with the Valley's growth. In 2007, the average annual daily traffic (AADT) was 17,500 vehicles. In the future, the average daily traffic is predicted to increase to 23,300 vehicles by the year

2015 and 34,500 vehicles by the year 2035 (Caltrans Updated Traffic Operational Analysis, 2009).

Proposed Action

The project proposes to realign State Route 65 in Tulare County from Hermosa Street (post mile 29.5) in the city of Lindsay to State Route 245 northeast of the city of Exeter or about one-half mile (post mile 0.5) north of State Route 198 (post mile R38.6). The total length of the project would be about 9.3 miles with construction of a two-lane expressway (8.8 miles built on four-lane right-of-way) that would include frontage roads, railroad overhead crossings, new bridges, controlled access, and utility relocations. The project would also have about 0.5 mile of transition improvements on State Route 245 starting at State Route 198.

In accordance with Caltrans standards for expressways, the proposed project would include the minimum 0.5-mile distance between access points. According to the Caltrans Highway Design Manual, an expressway is an arterial highway with at least partial access control (intersections) and may or may not be divided by a median or have grade separations at intersections. Limited or restricted access to the expressway means the elimination of driveways and access easements.

Frontage roads would be developed to maintain access to properties that would be affected by these standards. A frontage road is a local street (or auxiliary road) on the side of an arterial highway for service to abutting property and adjacent areas and for control of access (Caltrans Highway Design Manual).

Alternatives

Two build alternatives (Alternative 1 and Alternative 2) and a No-Build Alternative are under consideration. Both build alternatives, follow a new alignment that mostly parallels Spruce Avenue (Road 204) east of the city of Exeter, would bypass the city by building a two-lane expressway on a four-lane right-of-way. Both build alternatives would include the following:

- Improve local road intersections
- Require utility and residential relocations
- Require frontage roads for property access
- Require cul-de-sacs (dead-ends or turnarounds)
- Limit access to the expressway

- Cross over Lewis Creek, the Friant-Kern Canal, and the San Joaquin Valley Railroads, requiring the construction of overhead crossings and bridge structures
- A new bridge would be constructed over the Friant-Kern Canal to the west of the existing Bridge #46C-0182, which will remain in place

The following are the primary differences between the two build alternatives: Alternative 1, for most of its length, would parallel the east and west side of existing Spruce Avenue (Road 204), depending on location; Alternative 2, for most of its length, would parallel the west side of existing Spruce Avenue (Road 204). The total project cost estimate for Alternative 1 is \$94,534,000; Alternative 2 is \$96,857,000. The project, however, would be built in four phases as funding becomes available.

The No-Build Alternative would keep State Route 65 in its existing condition. Routine maintenance projects would continue.

Joint California Environmental Quality Act/National Environmental Policy Act Document

The proposed project is a joint project by the California Department of Transportation (Caltrans) and the Federal Highway Administration 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 and the National Environmental Policy Act. Caltrans is the lead agency under the California Environmental Quality Act. In addition, the Federal Highway Administration'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 Caltrans under its assumption of responsibility as stated in 23 U.S. Code 327.

Impacts determined significant under the California Environmental Quality Act may not lead to a determination of significance under the National Environmental Policy Act. Because the National Environmental Policy Act 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 the National Environmental Policy Act. One of the most commonly seen joint document types is an environmental impact report/environmental assessment.

Following receipt of public comments on the draft environmental impact report/environmental assessment and circulation of the final environmental impact report/environmental assessment, Caltrans will be required to take actions regarding the environmental document and will determine whether to certify the environmental impact

Summary

report and issue findings and a Statement of Overriding Considerations under the California Environmental Quality Act. Caltrans will also decide whether to issue a Finding of No Significant Impact or require an environmental impact statement under the National Environmental Policy Act.

Summary

S.1 Summary of Major Potential Impacts from Alternatives

Potential Impact		Alternative 1	Alternative 2	No-Build Alternative
Land Use Is the project consistent with the General Plans of these cities?	Exeter	Discussed in the Tulare County General Plan and the Regional Transportation Plan	Discussed in the Tulare County General Plan and the Regional Transportation Plan	An expressway would not be built.
	Lindsay	Discussed in the Tulare County General Plan and the Regional Transportation Plan	Discussed in the Tulare County General Plan and the Regional Transportation Plan	An expressway would not be built.
	Tulare County	Discussed in the Tulare County General Plan and the Regional Transportation Plan	Discussed in the Tulare County General Plan and the Regional Transportation Plan	An expressway would not be built.
Growth Would the project induce growth?		Would not induce growth because there are no new access points proposed	Would not induce growth because there are no new access points proposed	No change
Farmlands How many acres of farmland will be converted?	Total Acreage (rounded)	320 acres	321 acres	0
	Prime and Unique (rounded)	63 acres	63 acres	0
	Williamson Act (rounded)	149 acres	168 acres	0
Community Character and Cohesion		Would promote community cohesion by removing regional traffic through Exeter	Would promote community cohesion by removing regional traffic through Exeter	State Route 65 currently divides the city of Exeter.
Relocation Will the project displace any of the following?	Business	Potentially relocates 1 business	Potentially relocates one business	No business relocations
	Housing	Potentially relocates 13 single-family residences, 1 mobile home, and 2 tenant occupied mobile homes	Potentially relocates up to 11 single-family residences, 3 mobile home and 1 tenant occupied mobile home	No residential relocations
	Utility Service	Relocates telephone and power lines, high-pressure gas lines, irrigation lines, waterline fire hydrants, and fiber optics along Spruce Avenue (Road 204)	Requires new telephone poles, power poles and irrigation lines	No utility service relocations

Summary

Potential Impact		Alternative 1	Alternative 2	No-Build Alternative
Environmental Justice		Would not cause a disproportionately high and adverse effect on any minority or low-income populations	Would not cause a disproportionately high and adverse effect on any minority or low-income populations	No change
Traffic and Transportation/ Pedestrian and Bicycle Facilities		Would have to incorporate planned bicycle paths on Rocky Hill Drive Would improve existing levels of service and continuity of the highway	Would have to incorporate planned bicycle paths on Rocky Hill Drive Would improve existing levels of service and continuity of the highway	Traffic delays and average travel speed would continue to worsen.
Visual/Aesthetics		Would not affect the overall rural character of the landscape even though the physical changes, (overhead railroad crossings; canal bridges; existing farmland and orchard removal) would be substantial	Would not affect the overall rural character of the landscape even though the physical changes, (overhead railroad crossings; canal bridges; existing farmland and orchard removal) would be substantial	No change to resources
Cultural Resources	Archaeology	Based on preliminary studies, it appears to have no effect on any recorded archaeology sites; however, due to the sensitivity of cultural resources in the area, further studies are required before construction begins.	Based on preliminary studies, it appears to have no effect on any recorded archaeology sites; however, due to the sensitivity of cultural resources in the area, further studies are required before construction begins.	No change to resources
	Historic Architecture	Would have no visual impact to historic structures Would construct a new bridge over the Friant-Kern Canal, which is eligible for the National Register of Historic Places, but would not require replacement of the historic canal bridge on Spruce Avenue/Road 204	Would have an indirect visual impact to two historic structures Would construct a new bridge over the Friant-Kern Canal, which is eligible for the National Register of Historic Places, but would not require replacement of the historic canal bridge on Spruce Avenue/Road 204.	No change to resources
Water Quality and Storm Water Runoff		Would disturb 205.77 acres of soil during construction, resulting in temporary impacts, and creates 76.26 acres of impervious surface area; best management plans and a Storm Water Pollution Plan would be necessary	Would disturb 186.74 acres of soil during construction, resulting in temporary impacts, and creates 76.26 acres of impervious surface area; best management plans and a Storm Water Pollution Plan would be necessary	No change to resources

Summary

Potential Impact	Alternative 1	Alternative 2	No-Build Alternative
Paleontology	Based on preliminary studies, the uppermost few feet of sediment are unlikely to yield significant vertebrate fossils; however, any excavation deeper than 6 feet could encounter scientifically significant vertebrate fossils	Based on preliminary studies, the uppermost few feet of sediment are unlikely to yield significant vertebrate fossils; however, any excavation deeper than 6 feet could encounter scientifically significant vertebrate fossils	No change to resources
Hazardous Waste/Materials	Further investigation is needed to determine the effects of above- and underground storage tanks on six parcels	Further investigation is needed to determine the effects of above- and underground storage tanks on two parcels	No land would be acquired.
Air Quality	The Environmental Protection Agency provided concurrence that this is not a project of air quality conformity concern as a whole; concurrence will be requested for phased a project after the comment period.	The Environmental Protection Agency provided concurrence that this is not a project of air quality conformity concern as a whole; concurrence will be requested for phased a project after the comment period	Could lead to increases in mobile-source pollutants as congestion increases.
Noise and Vibration	Noise levels would not approach or exceed the noise abatement criteria of 67 decibels for any identified receptors.	Although noise levels may approach or exceed the noise abatement criteria of 67 decibels for some identified receptors—due to the rural and isolated nature of the receptors—abatement was determined unreasonable and unfeasible.	No noise and vibration impacts
Wetlands and other Waters	Permanent impacts: 0.11 acre	Permanent impacts: 0.15 acre	No change to resources
Threatened and Endangered Species	Impacts to potential foraging habitat of the San Joaquin kit fox: 240.20 acres of temporary impacts; 132.93 acres of permanent impacts.	Impacts to potential foraging habitat of the San Joaquin kit fox: 249.93 acres of temporary impacts; 120.55 acres of permanent impacts.	No change to resources

Permits and Approvals

Table S.2 provides the permits and agreements required for the proposed Tulare Expressway Project.

S.2 Coordination with Other Agencies

Agency	Permit/Approval	Status
United States Fish and Wildlife Service	Section 7 Biological Opinion for Threatened and Endangered Species	Biological Assessment submitted after the preferred alternative is identified; Biological Opinion must be received before final environmental document is approved
California Department of Fish and Game	Section 1602 Streambed Alteration Agreement, 2080.1 for a consistency determination with the Biological Opinion issued by the U.S. Fish and Wildlife Service	Application for a 1602 permit submitted during Project Specifications and Estimates phase of the project
United States Army Corps of Engineers	Section 404 Nationwide Permit for permanent impacts to Waters of the United States.	Application for Section 404 permit submitted during Project Specifications and Estimates phase of the project
San Joaquin Valley Regional Water Quality Control Board	Section 401 Certification for a Water Discharge Permit.	Application for a Section 401 permit submitted during Project Specifications and Estimates phase of the project
State Water Resource Control Board	Section 402 National Pollutant Discharge Elimination System	Application for a Section 402 permit to be submitted during Project Specifications and Estimates phase of the project
San Joaquin Valley Air Pollution Control District	Dust Control Plan	Caltrans Standard Specifications pertaining to dust control plan would be in the construction contracts
San Joaquin Valley Air Pollution Control District	Notification would be required before demolition of any bridges or structures.	Notification would be made during construction phase of the project

Table of Contents

Summary	iii
Table of Contents	xiii
List of Figures	xv
List of Tables	xv
List of Abbreviated Terms	xvi
Chapter 1 Proposed Project	1
1.1 Introduction	1
1.2 Purpose and Need	7
1.2.1 Purpose	8
1.2.2 Need	8
1.2.2.1 Route Continuity	8
1.2.2.2 Interregional Traffic Flow	8
1.2.2.3 Capacity and Congestion	9
1.2.2.4 Safety	14
1.3 Alternatives	16
1.3.1 Build Alternatives	16
1.3.2 No-Build Alternative	30
1.3.3 Comparison of Alternatives	30
1.3.4 Alternatives Considered but Eliminated from Further Discussion	33
1.4 Permits and Approvals Needed	34
Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures	35
2.1 Human Environment	36
2.1.1 Land Use	36
2.1.1.1 Existing and Future Land Use	36
2.1.1.2 Consistency with State, Regional and Local Plans	46
2.1.2 Growth	47
2.1.3 Farmlands	49
2.1.4 Community Impacts	53
2.1.4.1 Community Character and Cohesion	53
2.1.4.2 Relocations and Real Property Acquisition	55
2.1.4.3 Environmental Justice	58
2.1.5 Utilities/Emergency Services	63
2.1.6 Traffic and Transportation/Pedestrian and Bicycle Facilities	64
2.1.7 Visual/Aesthetics	70
2.1.8 Cultural Resources	78
2.2 Physical Environment	84

Table of Contents

2.2.1	Hydrology and Floodplain	84
2.2.2	Water Quality and Storm Water Runoff	85
2.2.3	Paleontology	94
2.2.4	Hazardous Waste or Materials	95
2.2.5	Air Quality	99
2.2.6	Noise	112
2.3	Biological Environment	121
2.3.1	Wetlands and Other Waters	122
2.3.2	Animal Species	126
2.3.3	Threatened and Endangered Species	128
2.3.4	Invasive Species.....	135
Chapter 3	California Environmental Quality Act Evaluation.....	137
3.1	Determining Significance under the California Environmental Quality Act.....	138
3.2	Discussion of Significant Impacts.....	138
3.2.1	Less than Significant Effects of the Project.....	138
3.2.2	Significant Environmental Effects of the Project	138
3.2.3	Unavoidable Significant Environmental Effects	139
3.2.4	Climate Change.....	139
Chapter 4	Comments and Coordination.....	157
4.1	Scoping.....	157
4.2	Consultation with Responsible/Coordinating Agencies and Interested Parties	160
Chapter 5	List of Preparers	165
Appendix A	California Environmental Quality Act Checklist	169
Appendix B	Resources Relative to the Requirements of Section 4(f).....	179
Appendix C	Title VI Policy Statement	183
Appendix D	Summary of Relocation Benefits.....	185
Appendix E	State Office of Historic Preservation Concurrence Letters	191
Appendix F	Minimization and/or Mitigation Summary.....	195
Appendix G	Natural Resources Conservation Services–CPA 1006	201
Appendix H	Census Tracts Data	203
Appendix I	Air Conformity Concurrence.....	205
Appendix J	Memorandum for Demolition.....	209

List of Figures

Figure 1-1 Vicinity Map.....3
 Figure 1-2 Project Location Map5
 Figure 1-3 Levels of Service for Two-Lane Highways11
 Figure 1-4 Levels of Service for Unsignalized Intersections12
 Figure 1-5 Alternative 119
 Figure 1-6 Alternative 222
 Figure 1-7 Cross Sections of the Expressway27
 Figure 1-8 Cross Sections of the Frontage Roads29
 Figure 2-1 Project Corridor Land Use39
 Figure 2-2 Lindsay General Plan Map41
 Figure 2-3 Exeter General Plan Map43
 Figure 2-4 Typical Noise Levels114
 Figure 2-5 Receptor Map of R- 3 and R-7117
 Figure 2-6 Receptor Map of R-1, R-2, and R-4119
 Figure 3-1 California Greenhouse Gas Inventory144
 Figure 3-2 Possible Effect of Traffic Speeds in Reducing On-Road CO₂ Emission ...145
 Figure 3-3 The Mobility Pyramid149
 Figure I-1 Project Corridor Census Tracts203

List of Tables

S.1 Summary of Major Potential Impacts from Alternatives ix
 S.2 Coordination with Other Agencies xii
 Table 1.1 Future Average Daily Traffic and Level of Service without Project10
 Table 1.2 Intersection Level of Service (LOS)14
 Table 1.3 Accident Rates on State Route 6515
 Table 1.4 Accident Rates for Intersections on State Route 6516
 Table 1.5 Comparison of Alternatives.....32
 Table 1.6 Permits and Approvals Needed34
 Table 2.1 Primary Land Use Categories Affected by Alternative.....37
 Table 2.2 Projects Proposed In and Near the Project44
 Table 2.3 Primary Land Use Categories.....45
 Table 2.4 Agricultural Land Use50
 Table 2.5 Farmland Conversion by Alternative52
 Table 2.6 Summary of Potential Relocations57

Table of Contents

Table 2.7	Ethnic/Racial Data for the Project Area	61
Table 2.8	Median Household Income and Percent Below Poverty Level.....	62
Table 2.9	Utilities Affected	63
Table 2.10	Existing Intersection Level of Service (LOS)	65
Table 2.11	Intersection Level of Service (LOS)	67
Table 2.12	Air Quality Standards and Status	103
Table 2.13	Current and Future Traffic Volumes	108
Table 2.14	Summary of Project-Level Carbon Monoxide Analysis	110
Table 2.15	Activity Categories and Noise Abatement Criteria.....	113
Table 2.16	Summary of Short-Term Noise Measurements.....	120
Table 2.17	Permanent Impacts to Waters of the U.S.	125
Table 2.18	Mitigation Proposed for Impacts to Waters of the U.S.	126
Table 2.19	Impacts to San Joaquin Kit Fox Foraging Habitat	133
Table 2.20	San Joaquin Kit Fox Mitigation Compensation	135
Table 3.1	Estimated Carbon Dioxide Emissions for All Alternatives.....	148
Table 3.2	Climate Change Strategies	151
Table F.1	Mitigation Proposed for Impacts to Waters of the U.S.	198
Table F.2	San Joaquin kit fox Mitigation Compensation	199
Table H.1	Block Groups Within Project Corridor	204

List of Abbreviated Terms

Caltrans	California Department of Transportation
TCAG	Tulare County Association of Governments
CEQA	California Environmental Quality Act
FHWA	Federal Highway Administration
NEPA	National Environmental Policy Act
PM	post mile
FHWA	Federal Highway Administration
SHPO	State Historic Preservation Officer
USFWS	U.S. Fish and Wildlife Service
DFG	California Department of Fish and Game
ACOE	Army Corps of Engineers

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans), in cooperation with the Tulare County Association of Governments, proposes to realign State Route 65 in Tulare County from Hermosa Street in Lindsay to State Route 245 one-half mile past State Route 198 northeast of Exeter (see Figure 1-1). The total length of the project would be about 9.3 miles, including about 0.5 mile of transition improvements on State Route 245 starting at Route 198. The project proposes construction of a two-lane expressway that can be expanded to a four-lane expressway as funding becomes available and traffic volumes increase.

Currently, State Route 65 passes through the city of Exeter. The proposed realignment would bypass the city and move the route east to parallel the Spruce Avenue (Road 204) alignment. The proposed realignment would cross the Friant-Kern Canal on the existing alignment of Spruce Avenue (Road 204) alignment and connect with State Route 245 (Road 204) north of State Route 198. Figure 1-2 shows the general alignments of the project.

Two build alternatives (Alternative 1 and Alternative 2) and a No-Build Alternative are being considered. Both build alternatives would bypass the city of Exeter and realign State Route 65 to corridors east of Spruce Avenue (Road 204). Both new alignments would parallel Spruce Avenue, and segments of Spruce Avenue (Road 204) would become frontage road. The project would include frontage roads, railroad overhead crossings, new bridges, controlled access, and utility relocations. The preferred alternative would be built in four phases as funding becomes available. The phases would begin and end at the same general locations, however, each alternative has different post miles (see Section 1.3 Alternatives):

- Phase 1—Hermosa Street to Avenue 244
- Phase 2—Avenue 244 to Avenue 268 (Myer Avenue)
- Phase 3—Avenue 268 (Myer Avenue) to Avenue 280 (Rocky Hill Drive)
- Phase 4—Avenue 280 (Rocky Hill Drive) to south of Avenue 300 on State Route 245

Under a Memorandum of Agreement with Tulare County, Road 244, Road 268, and Road 280 would be used as temporary connections between the new alignment and existing State Route 65 until the subsequent phases could be built.

The California Highway Commission, now known as the California Transportation Commission, adopted a proposed state highway between Avenue 288 (Hermosa Street) in Lindsay and Avenue 384, 10 miles north of Avenue 376 (old State Route 131) on January 25, 1962. Therefore, no new route adoption would be required for the project because the proposed alternatives are within the alignments of the route adoption. Although the existing route adoption predated the California Environmental Quality Act and the National Environmental Policy Act, this environmental document addresses both statutes.

The project is included in the 2008/09 Federal Transportation Improvement Program, the 2011 State Transportation Improvement Program/Regional Transportation Improvement Program, Program Code 075.600 with construction scheduled in fiscal year 2018/19. It is included in the Tulare County 2011 Regional Transportation Improvement Project as a financially constrained project and as a four-lane phased project with construction of the first phase beginning in 2019. State Route 65 is classified as a National Highway System Route and is eligible for federal funds.

Overview of Project Area

State Route 65 is a north-south component of the Tulare County road system, was adopted into the California Highway System in 1933, and is classified as a National Highway System route. The route is a connector from State Route 99 in Kern County and State Route 198 east of Visalia in Tulare County. Along the way, as State Route 65 parallels the Sierra Nevada foothills to the east, it links the cities of Porterville, Lindsay, Exeter, Woodlake, Visalia, as well as the communities of Ducor and Terra Bella.

State Route 65 follows a general north/northeast alignment from its beginning at State Route 99 in Kern County until reaching the project area. After passing Hermosa Avenue in Lindsay, the route turns west and merges with east-west State Route 137 for about 1.5 miles before turning north again. From State Route 137, existing State Route 65 passes through Exeter until ending at State Route 198. State Route 65, north of State Route 137, is also known as Kaweah Avenue or Road 196 (See Figure 1-2.)

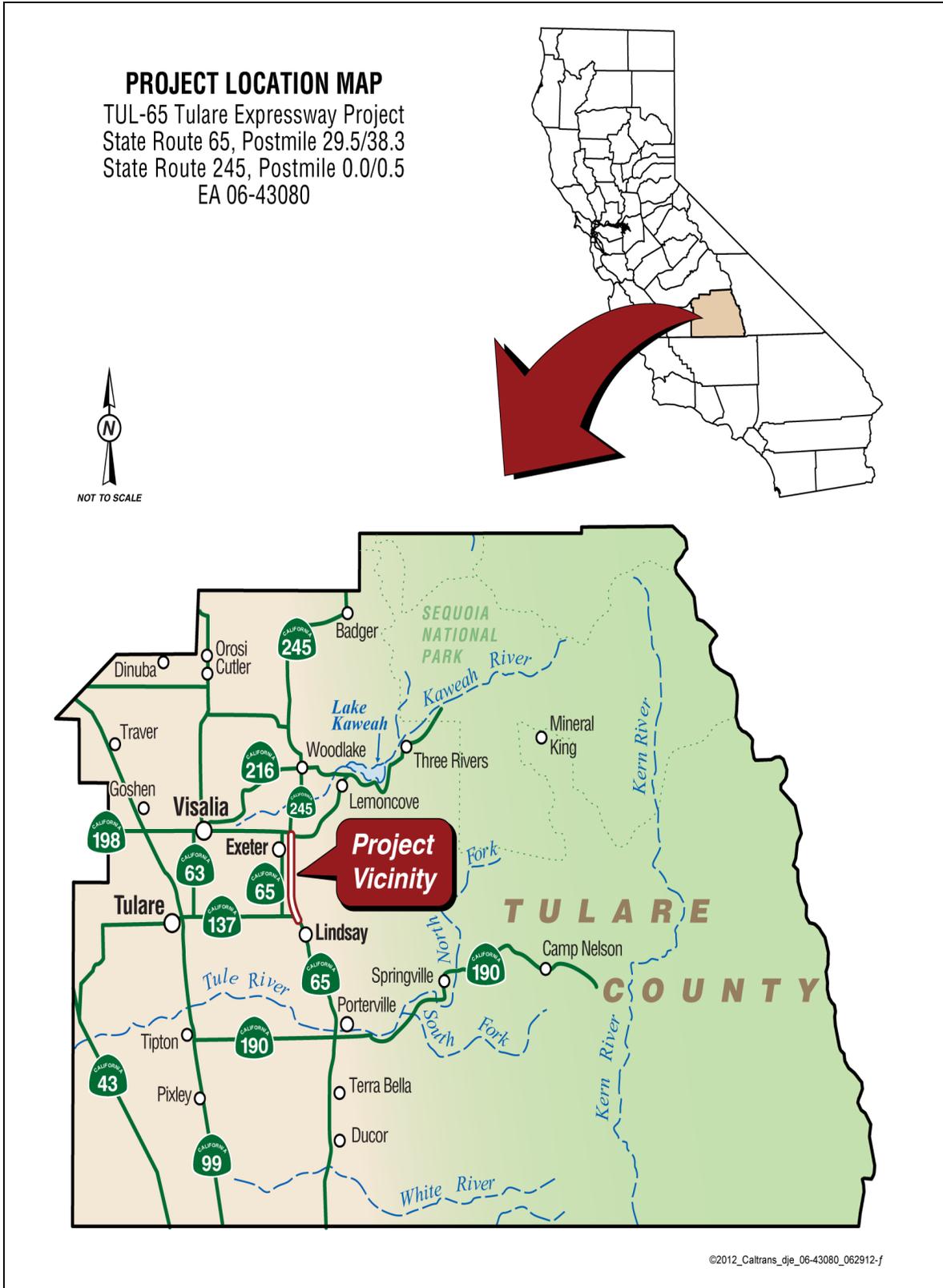


Figure 1-1 Vicinity Map



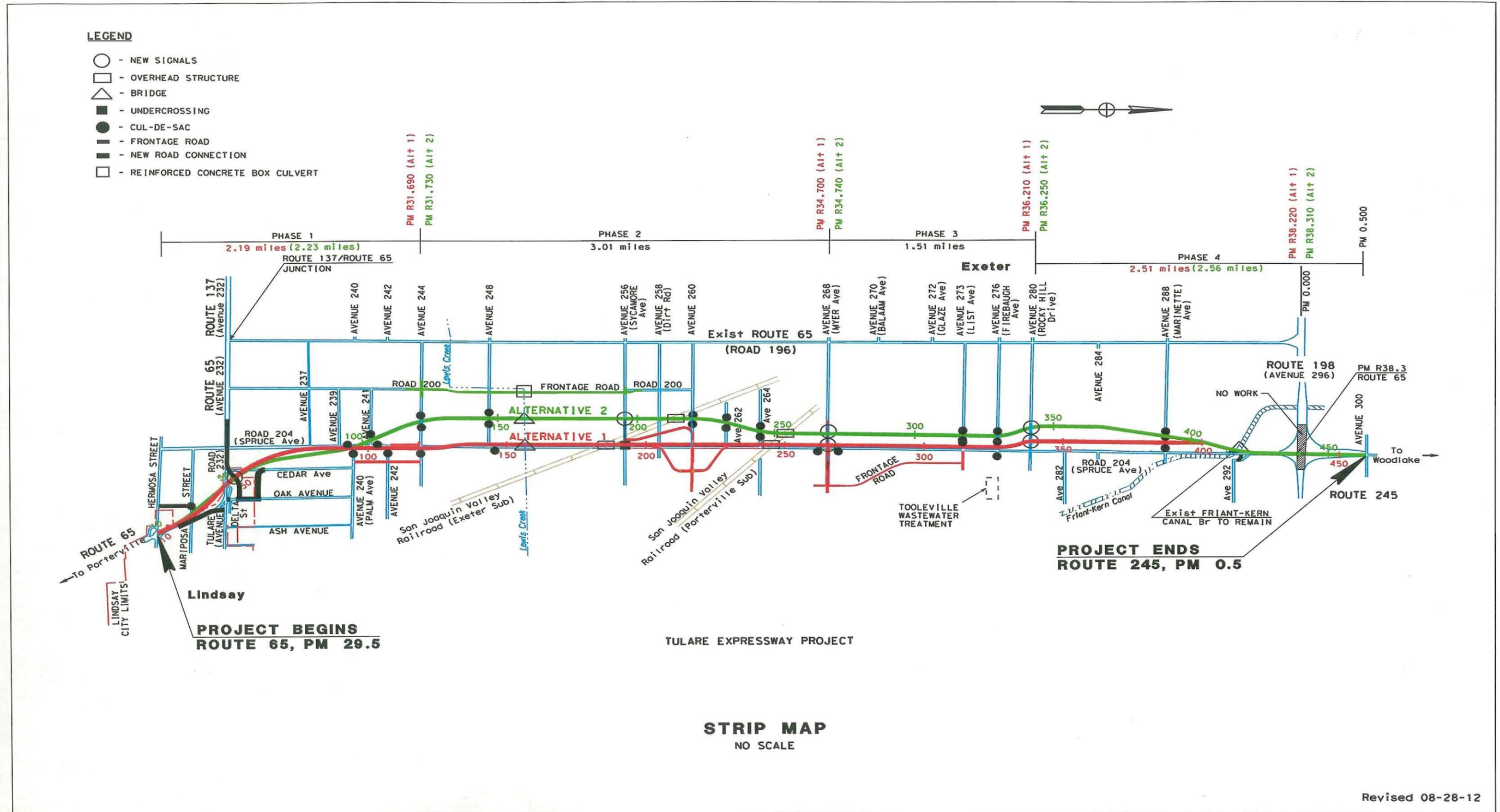


Figure 1-2 Project Location Map

State Route 198 is also a component of the Tulare County road system and the California Highway System, and travels east from State Route 101 near San Lucas in Monterey County to the Sequoia National Park boundary in Tulare County. State Route 198 is also part of the National Highway System and is the primary southern access route to Kaweah Lake, the Sequoia and Kings Canyon national parks, and other recreational areas in the eastern Sierra Nevada. The State Transportation Authority Act of 1982 designated State Route 198 for large trucks traveling between Interstate 5 and the Sequoia National Park boundary.

State Route 245 begins at State Route 198 and passes through the city of Woodlake before meandering through the Sierra Nevada foothills, passing through the mountain communities of Badger and Pinehurst before ending at State Route 180 in Fresno County just south of Sequoia Lake and the entrance to Kings Canyon National Park.

The project corridor parallels the Sierra Nevada foothills east of Exeter. Agriculture is the dominate landscape. However, residences and retail businesses are found at the beginning of the project in Lindsay and are also scattered along Spruce Avenue (Road 204). Also along Spruce Avenue (Road 204) is the community of Tooleville, several large agriculture-related businesses, a federal wastewater treatment plant, farmhouses, the Friant-Kern Canal, and two railroads.

For many years, Spruce Avenue (Road 204) was considered for transportation improvements. In 1962, the California Highway Commission adopted Spruce Avenue (Road 204) for a portion of State Highway Route 129 (now State Route 65) between Avenue 228 in Lindsay and Avenue 384 north of Woodlake. In 2000, the California Department of Transportation approved a project study report for the purpose of programming funds for project approval and the environmental document.

In addition, the Tulare County Association of Governments had a major investment study completed to evaluate alternative transportation options for the region. The major investment study process involved extensive public meetings to discuss and evaluate five transportation alternatives for the area between Exeter and Lindsay. The five alternatives included improving State Route 65 on the existing alignment, improving Spruce Avenue (Road 204), passenger rail service, expanded transit service, and a No-Build Alternative.

1.2 Purpose and Need

The purpose and need section discusses the reasons for build alternative development, provides the rationale behind the project proposal, and influences the range of

alternatives. “Purpose” is the set of objectives that will be met to fix the transportation problem. “Need” is the transportation deficiency or problem.

1.2.1 Purpose

The following is the purpose of the proposed project:

- Improve route continuity
- Improve interregional traffic flow
- Provide capacity for future increases in traffic volume
- Improve safety

1.2.2 Need

1.2.2.1 Route Continuity

The project is needed to provide a continuous route throughout the corridor to support an uninterrupted flow of traffic. Although State Route 65 south of Hermosa Street in Lindsay is classified as an expressway, the segment of State Route 65 between Hermosa Avenue north to State Route 198 is not an expressway. The proposed project would extend the existing expressway farther north to State Route 198, another designated expressway.

An expressway is defined as a highway with controlled access (no driveways and a limited number of intersections). This project would assist in incrementally moving toward the legislative standards of the Freeway and Expressway System and Caltrans System Planning goals of an expressway in rural areas and a freeway in urban areas.

Also, for traffic wishing to continue northward, the existing State Route 65 does not currently provide direct access to State Route 245 (Road 204). State Route 245 extends north of State Route 198 on the alignment of Spruce Avenue (Road 204) but is not an expressway. Currently, northbound traffic must turn east at the intersection of State Route 65 and State Route 198, travel for about one mile to the intersection of State Route 245 (Road 204) and State Route 198, enter a left-turn lane and wait for the traffic signal to allow a left turn.

1.2.2.2 Interregional Traffic Flow

State Route 65 is a north-south component of the Tulare County road system. Classified as a National Highway System route, it is a connector from State Route 99 in Kern County to State Route 198 east of Visalia in Tulare County. This connection with State Route 198 is important to interregional traffic because State Route 198 is the designated

truck route large trucks traveling between Interstate 5 and the Sequoia National Park boundary. State Route 65 is the primary southern access route to Kaweah Lake, Sequoia National Park, Kings Canyon National Park, and other recreational areas in the eastern Sierra Nevada.

State Route 245 is a north-south connector between State Route 198 and State Route 180 to the north. The highway serves as a primary access to the city of Woodlake and as an alternative route to State Route 180 leading into Sequoia National Park, Kings Canyon National Park, and the Sierra National Forest.

The efficient transportation of goods is critical to the economic health of the region. The existing State Route 65 roadway is deteriorating due to age and heavy use, and most of the facilities within the project area require rehabilitation. With traffic volume along the corridor being 14 percent truck traffic, future levels of service are projected to get worse with the existing two-lane configuration.

Existing State Route 65 passes through the eastern portion of the city of Exeter. Traffic flow is interrupted by pedestrian crossings, school zone speed limits, and local traffic entering and leaving the highway at driveways and intersections.

1.2.2.3 Capacity and Congestion

Existing State Route 65 merges regional through-traffic with local traffic resulting in slower traffic speeds and congestion. Interregional traffic and the traveling public familiar with congestion and delays through the city of Exeter will use Spruce Avenue (Road 204) as an alternate route.

Route capacity is measured in both traffic volume and quality of traffic flow. The average daily traffic count is the average number of vehicles that pass a given point with a 24-hour period. The average daily traffic on existing state Route 65 for project construction year 2015 is estimated to be 23,300 vehicles (Caltrans Updated Traffic Operational Analysis, 2009). In 10 years (2025), traffic volume is predicted to be 28,500 vehicles and in 20 years (2035), 34,500 vehicles (see Table 1.1).

Table 1.1 Future Average Daily Traffic and Level of Service without Project

Year	Average Daily Traffic (number of vehicles)	Level of Service Without the Project
2015	23,300	E
2025	28,500	E
2035	34,500	E

Source: Caltrans Updated Traffic Operational Analysis, 2009

Quality of traffic flow is represented as level of service. Level of service ranges from A to F. Level of service A indicates free-flowing traffic while level of service F indicates gridlock and stop-and-go conditions.

The 20-year concept for this segment of State Route 65, according to the 2002 Route Concept Report, is to build a divided four-lane expressway with level of service C. The ultimate concept (20 years and beyond) for this segment of State Route 65 is to build a divided four-lane expressway with a minimum right-of-way. The level of service C is assigned for the ultimate concept.

Currently, this segment of State Route 65 is level of service E and would remain so in the year 2015 if no improvements were made. The anticipated increase in regional population would add to the overall number of trips to the recreation areas in Sequoia and Kings Canyon national parks, as well as cause more local commuter trips. The expansion of the agricultural economy would cause additional truck traffic. Figure 1-3 shows the level of service criteria for two-lane highways. Figure 1-4 shows the level of service criteria for unsignalized intersections.

LEVELS OF SERVICE

for Two-Lane Highways

Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		55+	Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed. No delays
B		50	Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability. No delays
C		45	Stable traffic flow, but less freedom to select speed, change lanes or pass. Minimal delays
D		40	Traffic flow becoming unstable. Speeds subject to sudden change. Passing is difficult. Minimal delays
E		35	Unstable traffic flow. Speeds change quickly and maneuverability is low. Significant delays
F			Heavily congested traffic. Demand exceeds capacity and speeds vary greatly. Considerable delays

Source: 2000 HCM, Exhibit 20-2, LOS Criteria for Two-Lane Highways in Class 1

Figure 1-3 Levels of Service for Two-Lane Highways

LEVELS OF SERVICE

Unsignalized Intersections

Four-Way Stop

Level of Service	Flow Conditions	Delay per Vehicle (seconds)	Technical Descriptions
A		<10	Very short delays
B		10-15	Short delays
C		16-25	Minimal delays
D		26-35	Minimal delays
E		36-50	Significant delays
F		>50	Considerable delays

Source: 2000 HCM, Exhibit 17-22, Level of Service Criteria for AWSC Intersections

Figure 1-4 Levels of Service for Unsignalized Intersections

In September 2009, Caltrans updated the previous Traffic Operational Analysis for 12 intersections along the two main arterial roadways: State Route 65 (Road 196) and Spruce Avenue (Road 204).

The 2009 analysis was based on traffic counted in 2002 with the applied growth rate provided by Caltrans District 6 Technical Planning. As part of the development of future traffic forecasts, it was assumed that the traffic volumes would be the same for each of the two build alternatives. The assumption was made because the proposed alignments are relatively close together and begin and end at the same points.

It was anticipated that Alternative 2 would carry 5 to 10 percent less traffic because the existing Spruce Avenue (Road 204) alignment would remain in place and would provide a local access road in addition to the new state route. As a result, Alternative 2 may have a slightly better level of service for four intersections:

- State Route 198 at State Route 245 (north side of the intersection); State Route 198 at Spruce Avenue (Road 204) (south side of the intersection)
- Rocky Hill Drive (Avenue 280) and the new State Route 65
- Myer Avenue (Avenue 268) and the new State Route 65
- Sycamore Avenue (Avenue 256) and the new State Route 65.

Table 1.2 summarizes the Level of service for the existing year (2009), the construction year (2015), and the future year (2035) for the intersections without the project.

Table 1.2 Intersection Level of Service (LOS)

INTERSECTIONS	EXISTING			NO BUILD			
	2009			2015		2035	
	Type of Control	Morning LOS	Afternoon LOS	Morning LOS	Afternoon LOS	Morning LOS	Afternoon LOS
State Route 198 and existing State Route 65 (Road 196)	Signal	E	D	E	E	F	F
State Route 198 and State Route 245 north and Spruce Avenue (Road 204) south	Signal	E	F	F	F	F	F
Rocky Hill Drive (Avenue 280) and existing State Route 65 (Road 196)	Signal	B	B	B	B	C	D
Rocky Hill Drive (Avenue 280) and new State Route (Alternatives 1 and 2)	Stop Sign	D	D	E	F	F	F
Myer Avenue (Avenue 268) and existing State Route 65 (Road 196)	Stop Sign	B	C	B	D	C	F
Myer Avenue (Avenue 268) and new State Route 65 (Alternatives 1 and 2)	Stop Sign	D	C	E	F	F	F
Sycamore Avenue (Avenue 256) and existing State Route 65 (Road 196)	Stop Sign	B	C	C	D	E	F
Sycamore Avenue (Avenue 256) and new State Route 65 (Alternative 1 and 2)	Stop Sign	E	F	F	F	F	F
State Route 137 and existing State Route 65	Signal	C	C	C	D	F	F
Existing State Route 65 and Spruce Avenue (Road 204)	Signal	C	E	E	F	F	F
Tulare Road and existing State Route 65	Stop Sign	F	F	F	F	F	F
Hermosa Street and State Route 65	Signal	B	C	C	C	D	F

Source: Caltrans Updated Traffic Operational Analysis, 2009

1.2.2.4 Safety

The Caltrans Office of Traffic Operations provided a Safety Analysis in August 2012. According to the analysis, a total of 117 accidents were reported during the three-year period from April 1, 2008 to March 31, 2011 within the highway segment of the project limits: 2 fatal collisions, 27 injury-type accidents, and 88 accidents with property damage only. The type and number of collisions were head-on (1 collision), sideswipe (11), rear-end (52), broadside (23), hit object (25), overturn (4), and auto/pedestrian (1).

The accident data indicates the actual fatal and actual fatal plus injury (F+I) rate for this segment of State Route 65 is lower than the statewide average fatal and average fatal plus injury (F+I) rate for similar roadways with comparable traffic volumes. The actual total rate is slightly higher than the total statewide average rate (See Table 1.3). Accident rates are based on the number of accidents per million vehicles miles travelled.

Table 1.3 Accident Rates on State Route 65

State Route 65	Fatal	Fatal and Injury (F+I)	Total
Actual	0.020	0.29	1.19
Statewide Average	0.024	0.39	0.94

Source: Caltrans Traffic Operations, 2012

The same study provided accident history for the intersections on State Route 65 within the project limits. There are 40 public road intersections within the project limits. The accident history for 22 intersections on State Route 65 in the study area had lower actual total accident rates than the statewide average total accident rate for similar roadways with comparable traffic volumes.

Table 1.4 shows the 18 intersections with accident rates equal to or higher than the statewide average fatal, fatal plus injury, or total accident rates for similar roadways with comparable traffic volumes. Accident rates in accidents per million vehicles and the actual accident rates that are equal or higher are indicated by shading.

Table 1.4 Accident Rates for Intersections on State Route 65

Intersection	Actual			Average		
	Fatal	F+I (Fatal plus Injury)	Total	Fatal	F+I (Fatal plus Injury)	Total
Avenue 231 (Fresno Street) (post mile 29.92)	0.000	0.05	0.15	0.001	0.06	0.15
Spruce Avenue (Road 204) (post mile 30.540)	0.000	0.35	0.77	0.006	0.13	0.30
Avenue 236 (post mile 32.06)	0.000	0.17	0.17	0.003	0.08	0.20
Avenue 244 (post mile 33.03)	0.000	0.00	0.30	0.003	0.08	0.20
Avenue 256 (post mile 34.560)	0.000	0.08	0.55	0.006	0.13	0.30
Firebaugh Avenue (post mile 37.080)	0.000	0.00	0.25	0.001	0.06	0.15
Chestnut Avenue (post mile 37.445)	0.166	0.25	0.41	0.001	0.06	0.15
Rocky Hill Drive (post mile 37.58)	0.000	0.06	0.24	0.001	0.06	0.15
San Juan Street east (post mile 37.70)	0.00	0.00	0.15	0.001	0.06	0.15
Palm Street-west (post mile 37.75)	0.000	0.05	0.35	0.001	0.06	0.15
Walnut Street-left turn (Palm Drive-right turn) (post mile 37.85)	0.000	0.08	0.08	0.001	0.06	0.15
Sequoia Drive (post mile 37.95)	0.000	0.08	0.23	0.001	0.06	0.15
Avenue 288 (Marinette Avenue) (post mile 38.57)	0.076	0.08	0.23	00.00 6	0.13	0.30

Source: Caltrans Traffic Operation, 2012

1.3 Alternatives

1.3.1 Build Alternatives

Two build alternatives (Alternative 1 and Alternative 2) and a No-Build Alternative are under consideration. This section describes in detail the proposed build alternatives that were developed by a multi-disciplinary project development team. Caltrans evaluated alternatives that would feasibly attain the objectives of the project but would avoid or substantially lessen environmental impacts from the project. Evaluation criteria included the project’s purpose and need, environmental impacts, and project cost.

Common Design Features of the Build Alternatives

Alternative 1 and Alternative 2 would realign State Route 65 between Lindsay and State Route 198 to the east of the city of Exeter and build a two-lane expressway with access control on a four-lane right-of-way corridor in four phases as funding becomes available. The proposed project would eliminate uncontrolled access to State Route 65 (no driveways or local road access except at designated intersections) by including the minimum 0.5-mile distance between access points (intersections) in accordance with Caltrans standards for expressways. Frontage roads would be developed to maintain access to properties affected by these standards. The following are common features of the build alternatives:

- Realign existing State Route 65 in a corridor about 110 feet wide and 8.8 miles long following an alignment that mostly parallels Spruce Avenue (Road 204)
- Realign a portion of the east-west segment of existing State Route 65 and Tulare Road between Road 200 and Ash Avenue
- Required cul-de-sacs (dead-end or turnaround)
- Cross Lewis Creek with a new bridge(s)
- Cross the San Joaquin Valley Railroads with overhead crossings
- Construct new bridges over the Friant-Kern Canal west of the existing Bridge #46C-0182, which will be left in place
- Improve local road intersections, including 0.5 mile of transition improvements on State Route 245 starting at State Route 198
- Install culverts and side drainage ditches that would not exceed 6 feet in depth

Unique Features of the Build Alternatives

Alternative 1 would require the relocation of the utilities within the project limits along Spruce Avenue (Road 204), which include aerial electric lines, underground telephone lines and highway lightings. Both build alternatives would construct frontage roads and new connectors, which are described in each phase of the build alternatives in the following sections.

Alternative 1 Widen Spruce Avenue (Road 204)

Alternative 1 would realign State Route 65 on new right-of-way. Starting at Hermosa Street on existing State Route 65 in Lindsay at post mile 29.5, the alternative would end northeast of the city of Exeter about 0.5 mile north of State Route 198 on State Route 245, post mile 0.5 (see Figure 1-5). This alternative includes about 0.5 mile of transition improvements on State Route 245 starting at State Route 198. Alternative 1 closely parallels Spruce Avenue (Road 204) on one side or the other and would make Spruce Avenue (Road 204) a non-continuous road (not a through-road).

Phase 1—Hermosa Avenue (Post Mile 29.5) to Avenue 244 (Post Mile R31.69)

- **Alignment:** The alignment starts at Hermosa Avenue in the city of Lindsay and extends to the northeast on the west side of existing State Route 65. It passes the east-west segment of State Route 65 near Cedar Avenue (Road 206) in a northwest direction until reaching Avenue 237 where it turns to the north and keeps an alignment parallel to Spruce Avenue (Road 204) on the east side until ending just past Avenue 244.
- **Intersections:** State Route 137 (Tulare Road), east and west of Cedar Avenue (Road 206), would be realigned to meet the route-to-route intersection with the new alignment of State Route 65 as stated for design standards in the Caltrans Highway Design Manual.
- **New Roadways Connectors:** At the beginning of the project near Lindsay, west of the new State Route 65 alignment, a new road would be built to connect Hermosa Avenue to Mariposa Avenue. East of the new alignment, the project includes new connections between Mariposa Avenue and the existing State Route 65 and between the existing State Route 65 and Tulare Road. A new road would be built to connect Cedar Avenue (Road 206) and Oak Avenue.
- **Frontage Roads:** Spruce Avenue (Road 204) would become a frontage road with cul-de-sacs at Avenue 240, Avenue 242, and Avenue 244.
- **Structures:** No structures would be required in Phase 1.
- **Improvements to Existing Roadways:** Avenue 244 would be reconstructed to the existing State Route 65.
- Phase I would cost about \$26.8 million.

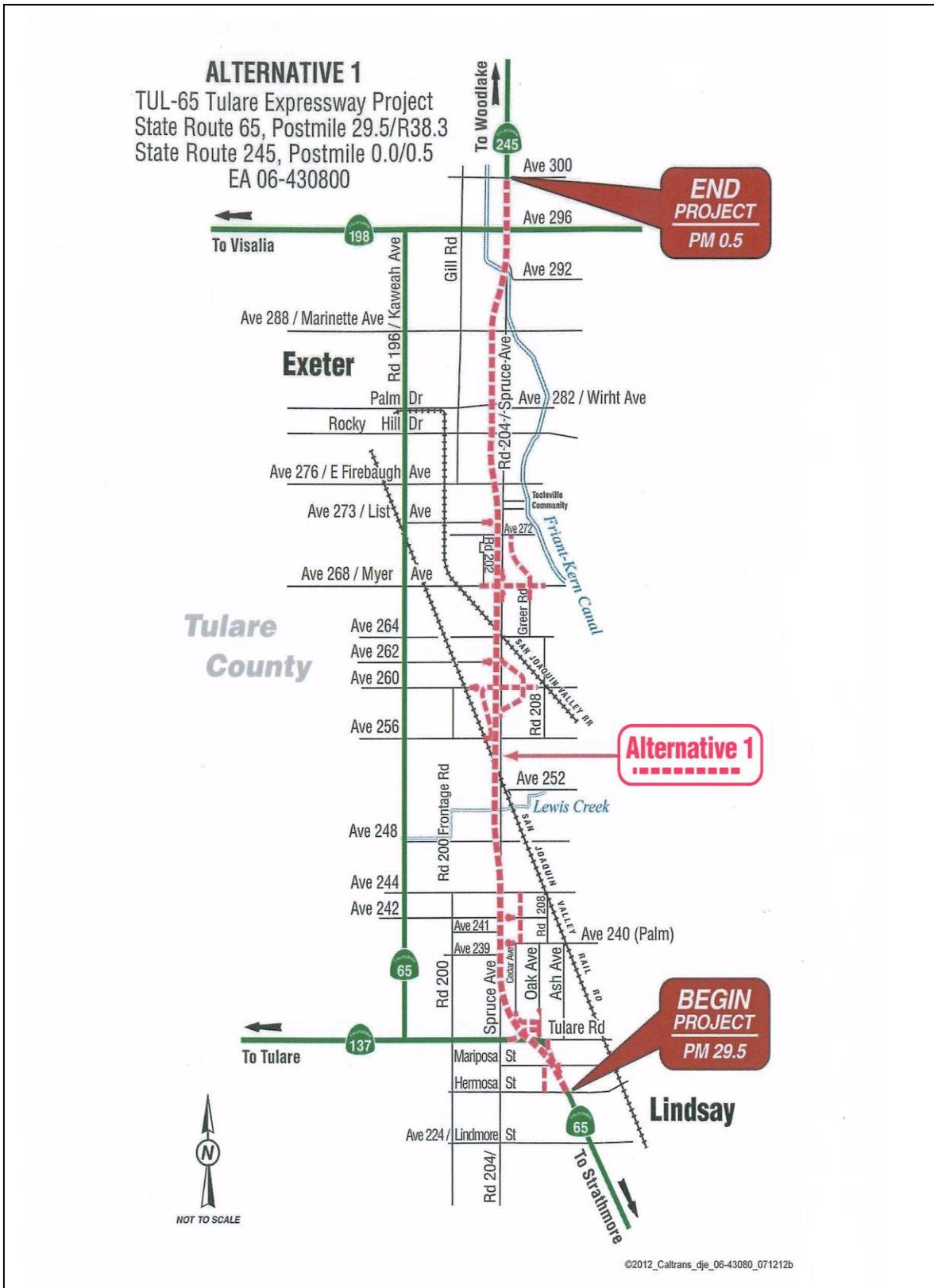


Figure 1-5 Alternative 1

Phase 2—Avenue 244 (Post Mile 31.69) to Avenue 268 (Myer Avenue) (Post Mile 34.70)

- Alignment: The alignment starts just north of Avenue 244 (east side of Spruce Avenue), crosses to the west of Spruce Avenue just before intersecting Avenue 248, and maintains a parallel course with Spruce Avenue (Road 204) until ending just north of Avenue 268 (Myer Avenue).
- Intersections: A new intersection at Avenue 260 would be constructed for the new connectors at Avenue 256 and Avenue 260. Avenue 268 (Myer Avenue) would have a new intersection with left-turn lanes in the median and traffic signals.
- New Roadway Connectors: A new connector between Avenue 256 and Avenue 260 would be built west of existing Spruce Avenue (Road 204). New connectors for Spruce Avenue (Road 204) would be built north and south of Avenue 260.
- Frontage Roads: Spruce Avenue (Road 204) would become a frontage road with cul-de-sacs south of Lewis Creek and south of Avenue 268 (Myer Avenue).
- Structures: A bridge structure would be built over Avenue 256, which would remain at ground level.
- Improvements to Existing Roadways: Avenue 268 (Myer Avenue) would be reconstructed to the existing State Route 65.
- Phase 2 would cost about \$32 million.

Phase 3—Avenue 268 (Myer Avenue) (Post Mile 34.70) to Avenue 280 (Rocky Hill Drive) (Post Mile 36.21)

- Alignment: The alignment starts just past Avenue 268 (Myer Avenue) and ends slightly north of Avenue 280 (Rocky Hill Drive). The new alignment maintains a parallel alignment with Spruce Avenue (Road 204) but starts curving slightly to the west north of Avenue 273 (List Avenue) until ending just north of Avenue 280 (Rocky Hill Drive).
- Intersections: Avenue 280 (Rocky Hill Drive) would have a new intersection with left-turn lanes in the median and traffic signals.
- New Roadways Connectors: A new connector between Avenue 268 (Myer Avenue) and Avenue 273 (List Avenue) would be built east of existing Spruce Avenue (Road 204).
- Frontage Roads: Spruce Avenue (Road 204) would become a frontage road with cul-de-sacs north of Avenue 268 (Myer Avenue). Cul-de-sacs would be built on Avenue 273 (List Avenue) west of the new alignment and on Avenue 276 (Firebaugh Avenue) west of the new alignment and east of the existing Spruce Avenue (Road 204).

- Structures: No structures would be required in Phase 3.
- Improvements to Existing Roadways: Avenue 280 (Rocky Hill Drive) would be reconstructed to the existing State Route 65.
- Phase 3 would cost about \$14.8 million.

Phase 4—Avenue 280 (Rocky Hill Drive) (Post Mile 36.21) to Avenue 300 on State Route 245 (Post Mile 0.50)

- Alignment: The alignment starts just north of Avenue 280 (Rocky Hill Drive) and ends at Avenue 300 on State Route 245. This new alignment maintains a parallel alignment to Spruce Avenue (Road 204) until passing Avenue 288 (Marinette Avenue). North of Avenue 288 (Marinette Avenue) the alignment curves to the east and crosses the Friant-Kern Canal west of the existing bridge before connecting with the existing Spruce Avenue (Road 204). The alignment continues north through the State Route 198 and State Route 245 intersection and ends at the State Route 245 and Avenue 300 intersection.
- Intersections: The intersection of State Route 198, State Route 245, and State Route 65 would be improved.
- New Roadways Connectors: Spruce Avenue (Road 204) would be connected to Avenue 292 north of the existing bridge over the Friant Kern Canal.
- Frontage Roads: Spruce Avenue (Road 204) would become a frontage road with a cul-de-sac on Avenue 288 (Marinette Avenue) west of existing Spruce Avenue (Road 204).
- Improvements to Existing Roadways: Avenue 280 (Rocky Hill Drive) would be reconstructed to the existing State Route 65.
- Phase 4 would cost about \$20.7 million.

Alternative 2 West Alignment

Alternative 2 would realign State Route 65 on new right-of-way. The alternative begins at Hermosa Street on existing State Route 65 in Lindsay at post mile 29.5 and ends northeast of the city of Exeter about 0.5 mile north of State Route 198 on State Route 245 at post mile 0.5 (See Figure 1-6). This alternative includes about 0.5 miles of transition improvements on State Route 245 starting at State Route 198. Alternative 2 parallels Spruce Avenue (Road 204) on the west after passing Avenue 241. Alternative 2 would make Spruce Avenue (Road 204) a non-continuous road.

Phase 1—Hermosa Avenue (Post Mile 29.5) to Avenue 244 (Post Mile R31.69)

- Alignment: The alignment starts at Hermosa Avenue in the city of Lindsay and extends northeast on the west side of existing State Route 65. The alignment passes the east-west segment of State Route 65 near Cedar Avenue (Road 206) in a northwest direction then turns toward the west side of Spruce Avenue (Road 204) at Avenue 240 until ending just past Avenue 244.
- Intersections: State Route 137 (Tulare Road), east and west of Cedar Avenue, would be realigned to meet the route-to-route intersection design standards in the Caltrans Highway Design Manual.
- New Roadways Connectors: At the beginning of the project near Lindsay, west of the new State Route 65 alignment, a new road would be built to connect Hermosa Avenue to Mariposa Avenue. East of the new alignment, a new road connection would be built between Mariposa Avenue to the existing State Route 65 and between the existing State Route 65 and Tulare Road. New roads would be built connecting Avenue 240 to Avenue 244, Cedar Avenue (Road 206) to Oak Avenue, and Oak Avenue to Delta Street.
- Frontage Roads: Spruce Avenue would become a frontage road with cul-de-sacs north of Avenue 239 and south of Avenue 242. Avenue 240 (Palm Avenue) would have a cul-de-sac east of the new alignment. Avenue 241 would have a cul-de-sac west of the new alignment.
- Structures: No structures would be required in Phase 1.
- Improvements to Existing Roadways: Avenue 244 would be reconstructed to the existing State Route 65.
- Phase 1 would cost about \$27.5 million.

Phase 2—Avenue 244 (Post Mile R31.69) to Avenue 268 (Myer Avenue) (Post Mile R34.74)

- Alignment: The alignment starts just past Avenue 244 and ends slightly north of Avenue 268 (Myer Avenue). The new alignment maintains a parallel alignment to Spruce Avenue (Road 204) on the west side but turns slightly to the east between Avenues 260 and 264 before ending just north of Avenue 268 (Myer Avenue).
- Intersections: Left-turn lanes (in the median) and traffic signals would be provided at Avenue 256 and Avenue 268 (Myer Avenue).
- Frontage Roads: A new frontage road would be built on Road 200 from Avenue 244 to Avenue 256. Cul-de-sacs would be built on the east and west side of the new alignment on Avenue 244, Avenue 248, Avenue 260, Avenue 262, and Avenue 264.
- Structures: A new bridge would be built at the Road 200 frontage road.

- Improvements to Existing Roadways: Avenue 268 (Myer Avenue) would be reconstructed to the existing State Route 65.
- Phase 2 would cost about \$31.3 million.

Phase 3—Avenue 268 (Myer Avenue) (Post Mile R34.70) to Avenue 280 (Rocky Hill Drive) (Post Mile R36.21)

- Alignment: The alignment starts just north of Avenue 268 (Myer Avenue) and ends slightly north of Avenue 280 (Rocky Hill Drive). The new alignment maintains a parallel alignment with Spruce Avenue (Road 204) but starts curving slightly to the west north of Avenue 273 (List Avenue) until ending just north of Avenue 280 (Rocky Hill Drive).
- Intersections: Avenue 280 (Rocky Hill Drive) would have a new intersection with left-turn lanes in the median and traffic signals.
- Frontage Roads: No new frontage road would be required; however, cul-de-sacs would be built east and west of the new alignment on Avenue 273 (List Avenue) and Avenue 276 (Firebaugh Avenue).
- Structures: No structures would be required.
- Improvements to Existing Roadways: State Route 65 would be upgraded from a two-lane conventional highway to a two-lane expressway on a four-lane alignment. Avenue 280 (Rocky Hill Drive) would be reconstructed to the existing State Route 65.
- Phase would cost about \$15.8 million.

Phase 4—Avenue 280 (Rocky Hill Drive) (Post Mile R36.21) to Avenue 300 on State Route 245 (Post Mile 0.50)

- Alignment: The alignment starts just north of Avenue 280 (Rocky Hill Drive) and ends at Avenue 300 on State Route 245. This new alignment maintains the alignment on Avenue 280 (Rocky Hill Drive) parallel to Spruce Avenue (Road 204). North of Avenue 288, the alignment curves to the east and crosses the Friant-Kern Canal west of the existing bridge before connecting with existing Spruce Avenue (Road 204). The alignment continues north through the State Route 198 and State Route 245 intersection until ending at Avenue 300 on State Route 245.
- Intersections: The State Route 65 and State Route 198 intersection and the State Route 65 and State Route 245 intersections would be improved.
- New Roadways Connectors: Spruce Avenue (Road 204) would be connected to Avenue 292 north of the existing bridge over the Friant Kern Canal.

- Frontage Roads: Spruce Avenue (Road 204) would become a frontage road. Cul-de-sacs would be built on Avenue 288 east and west of the new State Route 65 alignment.
- Improvements to Existing Roadways: Avenue 280 (Rocky Hill Drive) would be reconstructed to the existing State Route 65.
- Phase 4 would cost about \$22 million.

Figure 1-7 shows the cross sections of the two-lane expressway on a four-lane right-of-way. The simulation on the bottom shows the cross section of the proposed expressway with a left-turn lane. Figure 1-8 shows the cross sections of the frontage roads within the project.



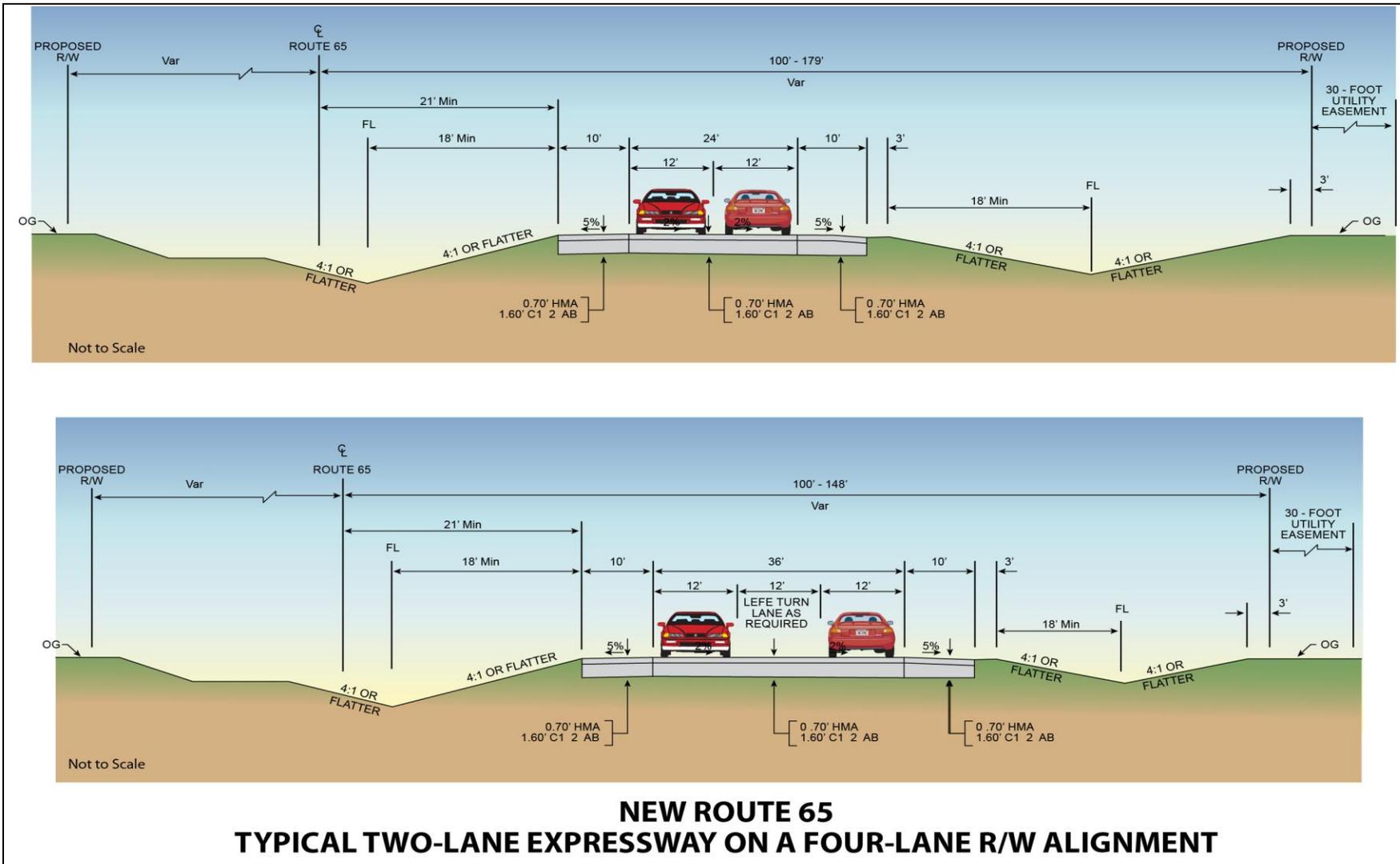


Figure 1-7 Cross Sections of the Expressway



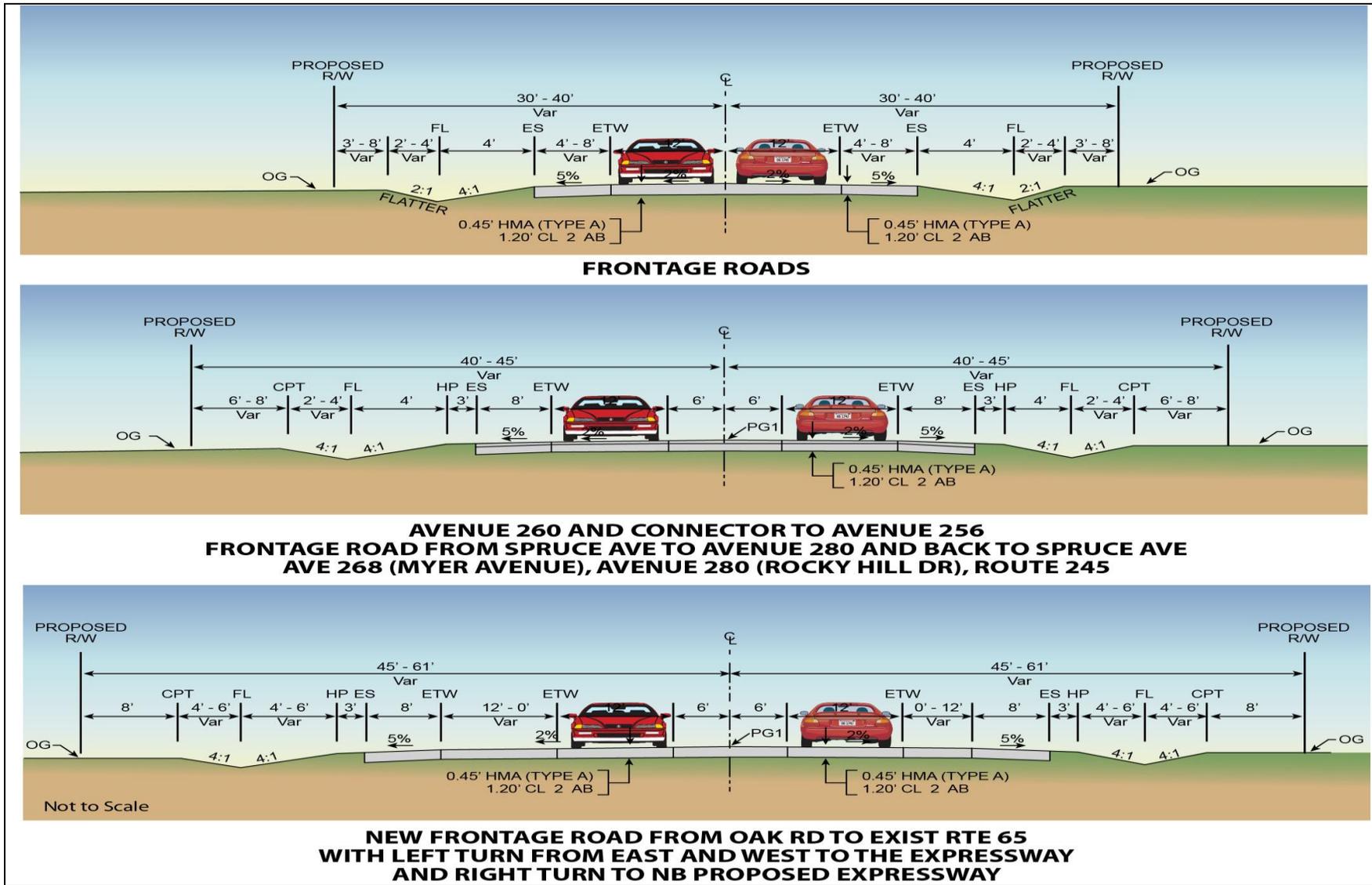


Figure 1-8 Cross Sections of the Frontage Roads

Transportation System Management and Transportation Demand Management Alternatives

Transportation systems management strategies comprise operational improvements to satisfy the purpose and need of the project by increasing the efficiency of existing facilities. Examples of the strategies include auxiliary lanes, turn lanes, reversible lanes, and traffic signal coordination. Transportation systems management also encourages ridesharing, and alternate modes of transportation.

Although transportation system management measures alone could not satisfy the purpose and need of the project, the following measures have been incorporated into the build alternatives for this project: left-turn lanes and traffic signals at intersections and at certain local road intersections. The low population density in this rural area does not support an expansion of the local public transit system.

Transportation demand management focuses on regional strategies for reducing the number of vehicle trips and vehicle miles traveled as well as increasing vehicle occupancy. It supports higher vehicle occupancy or reduces traffic congestion by expanding the traveler's transportation choice in terms of travel method, travel time, travel route, travel costs, and the quality and convenience of the travel experience. Typical activities within this component include providing contract funds to regional agencies that are actively promoting ridesharing, maintaining rideshare databases, and providing limited rideshare services to employers and individuals. No transportation demand management alternative was developed for this project because the purpose and need does not lend itself to being met by this type of alternative.

1.3.2 No-Build Alternative

The No-Build Alternative is the basis of comparison for the other alternatives. The traffic analysis was done using the projected traffic volumes for the year 2035. The study shows the estimated demand placed on the existing State Route 65. This alternative would not eliminate the increasing congestion or bring the roadway to current design standards. The No-Build Alternative would keep State Route 65 in its existing condition. Routine maintenance projects, however, would continue. The No-Build Alternative would not meet the purpose and need of the project.

1.3.3 Comparison of Alternatives

After the public circulation period, all comments will be considered, and Caltrans will select a preferred alternative and make the final determination of the project's effect on the environment. In accordance with the California Environmental Quality Act, Caltrans

will certify that the project complies with the act, 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.

Caltrans will then file a Notice of Determination with the State Clearinghouse that will identify whether the project will have significant impacts, whether mitigation measures were included as conditions of project approval, whether findings were made, and whether a Statement of Overriding Considerations was adopted. Similarly, if Caltrans, as assigned by the Federal Highway Administration, determines the National Environmental Policy Act action does not significantly affect the environment Caltrans will issue a Finding of No Significant Impact in accordance with the National Environmental Policy Act.

Table 1.5 shows a comparison of the alternatives. Both build alternatives meet the following purpose and need of the proposed project:

- Improve route continuity
- Improve interregional traffic flow
- Provide capacity for future increases in traffic volume
- Improve safety

For in-depth analysis of the items in this table, please review this document in its entirety as well as the technical documents that are also available during the circulation period at the locations listed on the inside cover.

Table 1.5 Comparison of Alternatives

Criteria	Alternative 1	Alternative 2	No-Build Alternative
Estimated total cost	Current cost estimate is \$82.3 million	Current cost estimate is \$84.4 million	Cost for maintenance of the existing roadway
Total disturbed area	Effects 114 property parcels and requires 319.6 acres	Effects 125 property parcels and requires 320.6 acres	No ground disturbance outside of normal maintenance
Environmental impacts:			
Land Use	Consistent with local, state, and regional land use	Consistent with local, state, and regional land use	An expressway would not be built
Growth	Would not induce unplanned growth	Would not induce unplanned growth	No change
Farmland	Requires 63 acres of prime/unique farmland Potentially affects 148 acres under Williamson Act contracts	Requires 63 acres of prime/unique farmland Potentially affects 168 acres under Williamson Act contracts	Would not result in any environmental impacts
Relocation	Potentially relocates one business, 13 single-family residences, one mobile home, and two tenant-occupied mobile homes Relocates telephone and power lines, high-pressure gas lines, irrigation lines, waterline (fire hydrants), and fiber optics along Spruce Avenue (Road 204)	Potentially relocates up to 11 single-family residences, three mobile homes, and one tenant-occupied mobile home Requires new telephone poles, power poles and irrigation lines	No relocations would be necessary
Water Quality	Creates 76.26 acres of impervious surface	Creates 71.11 acres of impervious surface	No change to resource
Hazardous Waste/Materials	Requires further investigation of six parcels for hazardous waste	Requires further investigation of two parcels for hazardous waste	No land would be required
Wetlands and other Waters	Results in 0.11 acre of permanent impact to Waters of the U.S.	Results in 0.15 acre of permanent impact to Waters of the U.S.	No change to resource
Threatened and Endangered Species	Results in 240.20 acres of temporary impacts to San Joaquin kit fox foraging habit Results in 132.93 acres of permanent impacts to San Joaquin kit fox foraging habitat	Results in 249.93 acres of temporary impacts to San Joaquin kit fox foraging habit Results in 120.55 acres of permanent impacts to San Joaquin kit fox foraging habitat	No change to resource

1.3.4 Alternatives Considered but Eliminated from Further Discussion

An additional build alternative (Alternative 3) was considered during the draft project report/draft environmental document phase. Alternative 3 was similar to the other two build alternatives except the proposed alignment, which paralleled Spruce Avenue (Road 204) to the east, had the potential to substantially affect the community of Tooleville.

Tooleville was identified as a community having a high population of minorities and low-income residents and, therefore, was subject to Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* signed by President Bill Clinton on February 11, 1994. This order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable as permitted by law. Therefore, this alternative was eliminated from further consideration due to the following potential:

- Displace one-third of the residents in the community
- Divide the community and disrupt community cohesion because there would not be enough housing in Tooleville to accommodate the displaced residents
- Affect about 50 percent of the Tooleville wastewater treatment plant

In addition, any acquisition of the wastewater treatment facility would have a high likelihood of hazardous waste problems. Impacts to the wastewater treatment plant, as well as the following issues contribute in an increase in project cost: relocation of all effected tenants, demolition, and clearance of all structures and appurtenances such as outbuildings and sheds.

1.4 Permits and Approvals Needed

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

Table 1.6 Permits and Approvals Needed

Agency	Permit/Approval	Status
United States Fish and Wildlife Service	Section 7 Biological Opinion for Threatened and Endangered Species	Biological Assessment submitted after the preferred alternative is identified; Biological Opinion must be received before final environmental document is approved
California Department of Fish and Game	Section 1602 Streambed Alteration Agreement,	Application for a 1602 permit submitted during Project Specifications & Estimates (PS&E) Phase of the project
United States Army Corps of Engineers	Section 404 Nationwide Permit for permanent impacts to Waters of the United States	Application for Section 404 permit submitted during Project Specifications & Estimates (PS&E) Phase of the project
State Regional Water Quality Control Board	Section 401 Certification for a Water Discharge Permit	Application for a Section 401 permit submitted during Project Specifications & Estimates (PS&E) Phase of the project
State Water Resource Control Board	Section 402 National Pollutant Discharge Elimination System	Application for a Section 402 permit to be submitted during Project Specifications & Estimates (PS&E) Phase of the project
San Joaquin Valley Air Pollution Control District	Dust Control Plan	Caltrans Standard Specifications pertaining to dust control plan would be in the construction contracts
San Joaquin Valley Air Pollution Control District	Notification would be required before demolition of any bridges or structures	Notification would be made during construction phase of the project

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

This chapter explains impacts the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures. Any indirect impacts are included in the general impacts analysis and discussions that follow.

The draft environmental impact report/environmental assessment is a summary of many technical studies conducted over time. Caltrans provided copies of the technical studies to the Tulare County public libraries in Exeter and Lindsay for public review.

The project was analyzed for environmental impacts as a whole; however, the project would be constructed in four phases and may not be completed for ten years or more. Given that timeline, some of the environmental conditions within the study areas may not be the same when subsequent phases are ready for construction; that is, environmental impacts may be lesser or greater than the current determination. Therefore, subsequent phases would be subject to an environmental review process.

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.

- Coastal Zone—The proposed project is not within a Coastal Zone but is near the foothills of the Sierra Nevada Mountain Range (Project Report 2012).
- Wild and Scenic Rivers—No rivers classified as Wild or Scenic exist within the proposed project area (Wild and Scenic Resources data base, March 2012).
- Parks and Recreation Facilities—The proposed project would not have an effect on any parks or recreation facilities (Site surveys, March 2012).
- Timberlands—No forest or tree stands are within the project area (Field visit, March 2012).
- Geology/Soils/Seismic/Topography— No geologic or topographic features were identified within the project area (National Registry of Natural Landmarks, Tulare County, California, 2011). No active faults exist within the proposed project area

(2010 Fault Activity Map of California). See Section 2.1.7, Visual and Aesthetics, for discussions that include potential erosion and changes to the visual topography.

- Energy—When balancing energy used during construction and operation against energy saved by relieving congestion and other transportation efficiencies, the project would not have substantial energy effects.
- Natural Communities—No natural communities of special concern exist within the Biological Study Area or nearby lands (Natural Environment Study, July 2012).
- Wetlands and Other Waters—No wetlands were identified within the biological study area (Natural Environment Study, July 2012). See 2.3.1., Other Waters.
- Plant Species—No special-status plant species were observed during the botanical surveys conducted for the project (Natural Environment Study, July 2012).

2.1 Human Environment

2.1.1 Land Use

The area where the proposed alternatives are located is identified as the project corridor. The project corridor is primarily east of the city of Exeter between Avenue 200 and Spruce Avenue (Road 204) and begins at Hermosa Avenue in Lindsay and ends 0.5 mile north of State Route 198 at Avenue 300.

This section describes the current and planned land use within the proposed project corridor. Land use planning within the project limits is mainly a function of the Tulare County General Plan and is one of seven elements required by state law to be addressed in the general plan. The remaining elements are circulation, housing, natural resources, noise, open space, and public safety. Land use plans and zoning are the main methods of managing local land use. These mechanisms govern the type and density of development in accordance with the Tulare County General Plan.

2.1.1.1 Existing and Future Land Use

The primary source of information for this section is the 2030 Tulare County General Plan Update: Land Use Element. The document states that, “This element establishes the policy direction that will be used to guide the development of residential, commercial, industrial, and other land uses in the County while seeking to protect agricultural lands, open space, the environment, and scenic landscapes.”

Affected Environment

The primary land use within the project corridor is agricultural or farmland. Table 2.1 lists the land use categories and their approximate acreages within the project corridor by build alternative.

Table 2.1 Primary Land Use Categories Affected by Alternative

Land Use Category	Total Acreage in Project Corridor	
	Alternative 1	Alternative 2
Agriculture	2065.5	2050.3
Agriculture Commercial	1.0	11.0
Agriculture/ Residence	25.1	0.0
Rural Residence	33.0	27.1
Residential	39.7	48.5
Commercial	12.6	11.2
Open Land	8.1	49.8
Canal	61.3	20.5
Railroad	8.4	14.8
TOTAL	2254.7	2233.2

Source: Caltrans Right of Way

A major portion of the environmental study area for the proposed project is within the jurisdiction of Tulare County and about 92 percent of the land within the project corridor is in agricultural production. From a 2011 Tulare County Planning Map, Figure 2-1 shows the project corridor within areas designated for agricultural use. The outer edges of the original map were removed to focus on the project corridor and surrounding areas.



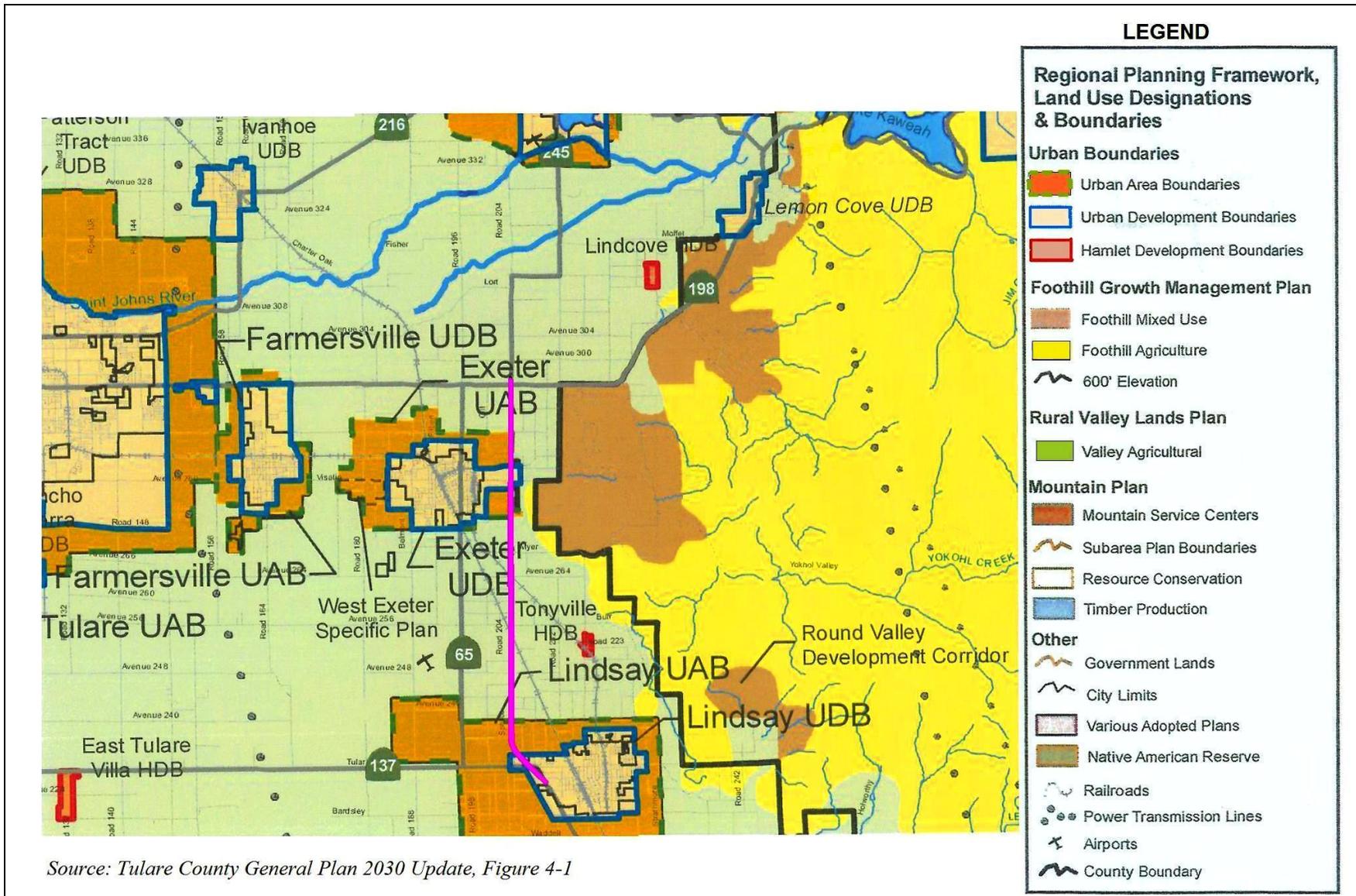


Figure 2-1 Project Corridor Land Use

At the southern end of the project, existing State Route 65 passes through Lindsay's western city limits where the properties adjacent to the highway on the east side are zoned as "highway commercial," and the properties on the west side are zoned as "highway commercial reserve," including the area where existing State Route 65 turns to the west between Oak and Cedar avenues. The area north of Tulare Road is zoned for "low- and medium-density" residential development.

East of State Route 65, outside the project's area of impact between Hermosa and Sierra View Street to the north and the railroad to the east, the properties are primarily designated as low and medium residential development with some public and semi-public facility; park and recreation; and heavy industrial scattered throughout (see Figure 2-2).

Near the city of Exeter, the alignments pass through the city's Urban Development Boundary and Urban Area Boundary that border by Spruce Avenue (Road 204). In a couple of areas, these boundaries extend beyond Spruce Avenue (Road 204). The Urban Area Boundary includes the community of Tooleville; the Urban Development Boundary includes some agricultural-based commercial businesses along Spruce Avenue (Road 204) between Wirth Avenue and Avenue 278. Figure 2-3 shows the Exeter General Plan map that includes the Exeter city limits, Urban Development Boundary, Urban Area Boundary, and the Sphere of Influence.

Lindsay General Plan

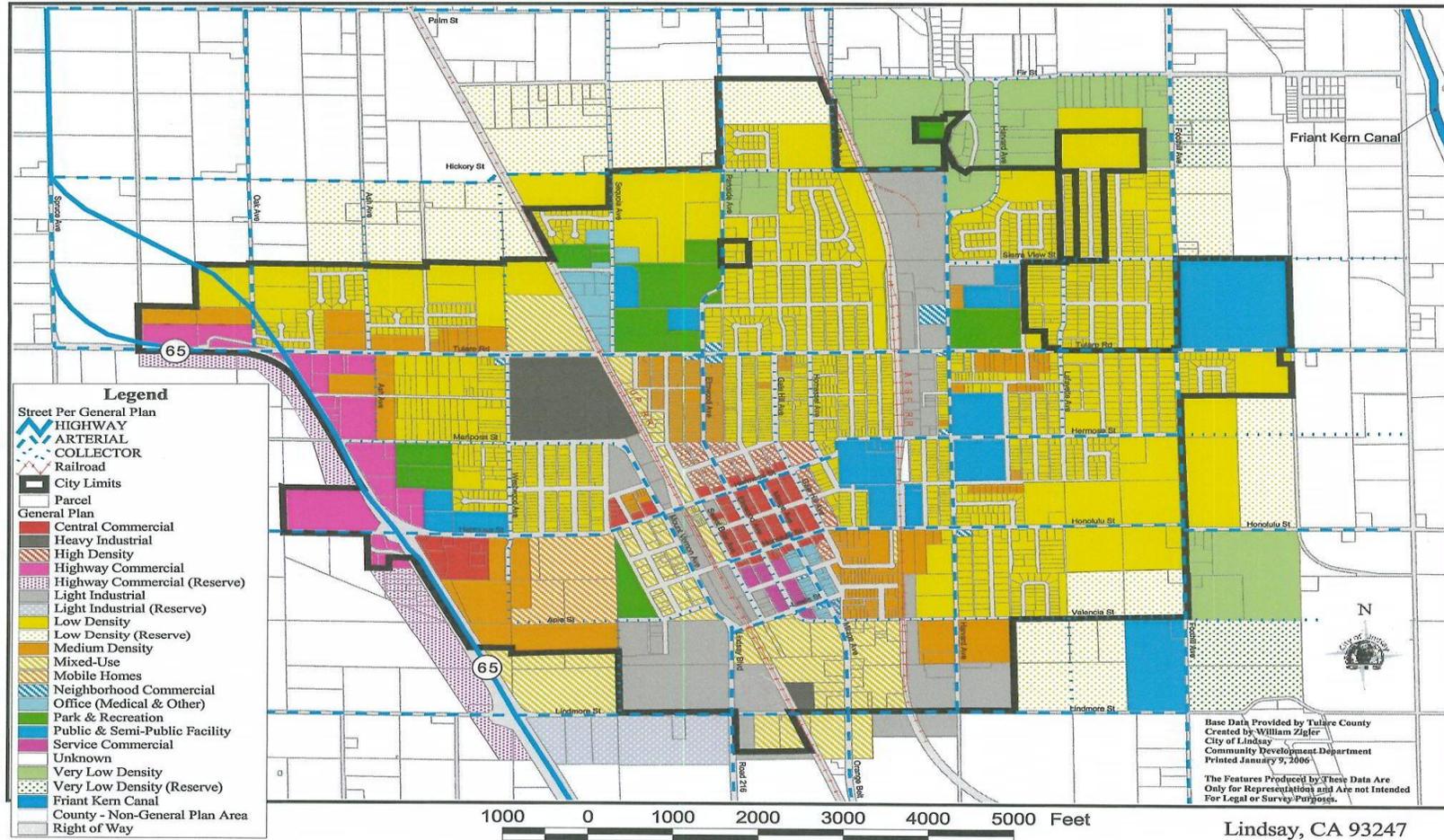


Figure 2-2 Lindsay General Plan Map



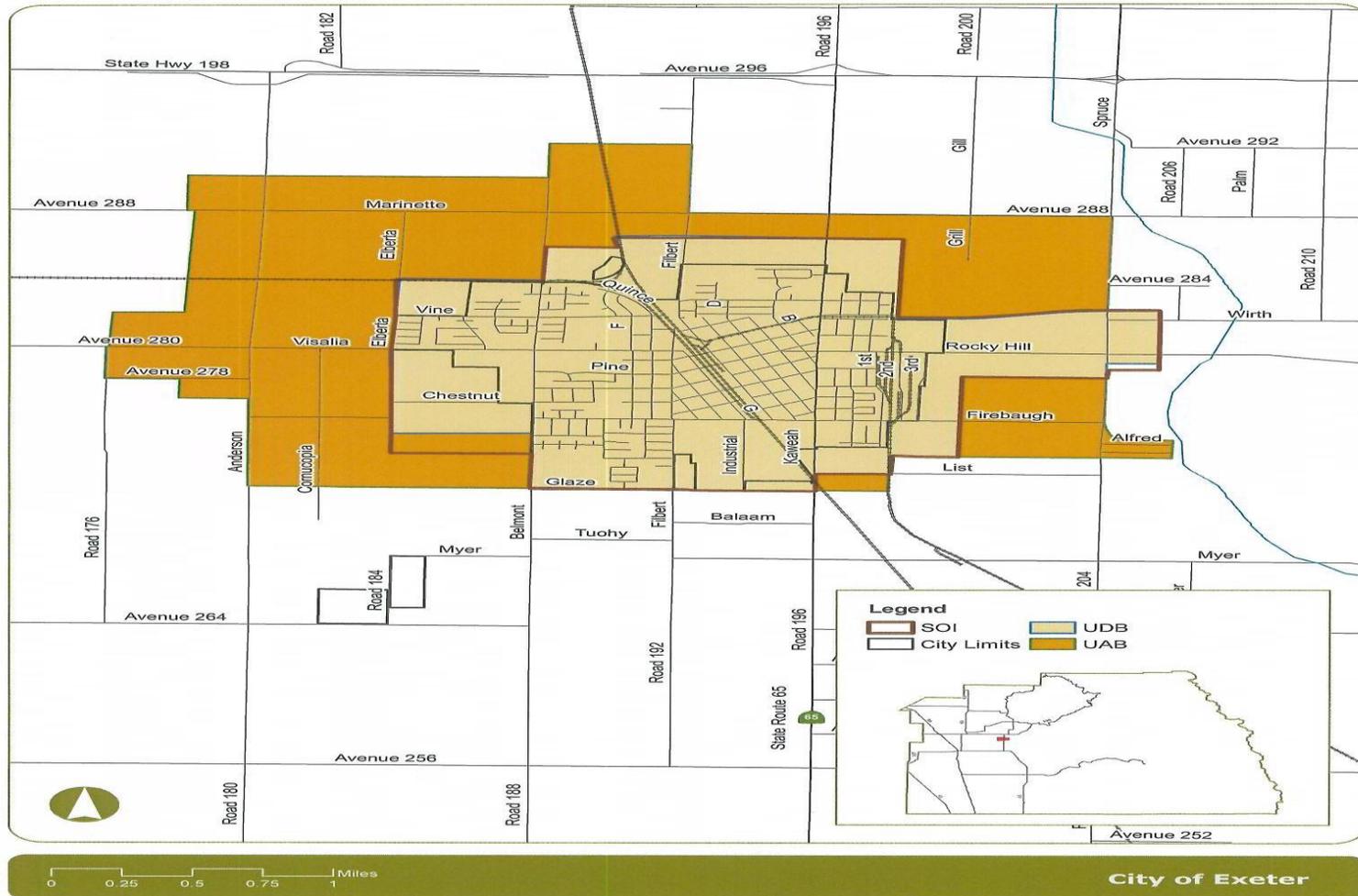


Figure 2-3 Exeter General Plan Map

Although several local projects are proposed near the project and a 3-acre nursery is proposed within the project corridor, none have been constructed. Table 2.2 lists the proposed projects within or near the project corridor.

Table 2.2 Projects Proposed In and Near the Project

Name	Jurisdiction	Proposed Uses	Status
Water Wells	City of Exeter	Establish and operate two water wells connected to the city of Exeter water system	Approved - Not Constructed
Lindsay Unified School District	City of Lindsay	Construct a new kindergarten through 8 th grade elementary school	Approved - Not Constructed
Vitapakt Wastewater Improvements	City of Exeter	Replace and extend industrial wastewater effluent lines (citrus food processing)	Approved - Not Constructed
Ortiz/Skylab	Tulare County	Develop a 1-3 acre nursery on 20 acres	Approved - Not Constructed
Agricultural Trucking Facility	Tulare County	Agricultural Trucking Facility – 3 trucks Southwest of Avenue 228 & Road 188	Approved - Not Constructed

Source: Caltrans Transportation Planning, 2012

No housing or residential development is currently planned within or near the project corridor. Yokohl Ranch, however, is a large development proposed to the east of the project corridor. Although the development has been publicized, it does not have final approval from Tulare County.

Yokohl Ranch is a privately owned 36,000-acre ranch in Yokohl Valley north of Lindsay and south of Three Rivers. The ranch is about 5 miles east of the city of Exeter and 15 miles east of Visalia. The development would be built in three phases in three distinct areas over 25 to 30 years. The proposal includes 10,000 homes for 30,000 people: a broad range of custom home sites, semi-custom estates, single-family detached homes of various sizes, attached townhomes, and apartment homes. According to the Yokohl Ranch website (www.yokohlranch.com), the first phase would be the location of nearly half of the planned homes and the Yokohl Ranch Town Center site, the mixed-use commercial-civic-residential core of Yokohl Ranch. About 70 percent of the ranch would remain undeveloped.

Primary access to the property is via Yokohl Drive (Road M-296) east of the State Route 245 and State Route 198 intersection. Development proposes transportation improvements indirectly related to this project: widen State Route 198 from Yokohl

Drive to State Route 245, improve the State Route 198 and Yokohl Drive (Road M-296) intersection, and improve East Myer Drive (Avenue 268).

Environmental Consequences

Both build alternatives would travel through the Urban Area Boundaries or the Urban Development Boundaries of Lindsay and Exeter. Both build alternatives would need “slivers” or narrow linear strips of property from the commercial businesses along State Route 65 at the beginning of the project. Both alternatives would convert almost equal amounts of farmland. See Section 2.1.3 for more farmland discussion.

Table 2.3 lists the approximate amount of right-of-way needed from the land use categories in the project area by build alternative. Agricultural production represents about 92 percent of the land use within the project corridor and about 87 percent of the needed right-of-way would come from those parcels in agricultural production.

Table 2.3 Primary Land Use Categories

Land Use Category	Acreage of Right of Way Needed (acres)	
	Alternative 1	Alternative 2
Agriculture	278.0	276.2
Agriculture Commercial	0.1	1.6
Agriculture/Residence	10.5	0.0
Rural Residence	12.3	9.9
Residential	10.5	13.9
Commercial	1.0	0.9
Open Land	0.4	14.2
Canal	5.7	3.0
Railroad	1.1	0.9
TOTAL	319.6	320.6

Source: Caltrans Right of Way 2012

State Route 198 would provide the primary access to the Yokohl Ranch site via Yokohl Valley Drive. The Yokohl Valley Drive is about 3 miles east of the current State Route 198 and State Route 65 intersection. The following are proposed secondary access routes:

- Rocky Hill Drive west to State Route 65 in Exeter
- E. Myer Drive (Road 268) west to State Route 65
- E. Myer Drive (Road 268) south on Road 216 in Lindsay
- Extension of Road 244 (4 miles east of Lindsay and State Route 65) to Yokohl Valley Drive

Avoidance, Minimization, and/or Mitigation Measures

The project would not result in the need for jurisdictional changes to the land use designations. No avoidance, minimization, or mitigation is required.

2.1.1.2 Consistency with State, Regional and Local Plans

Affected Environment

Land use and zoning are guided by general plans and other agency plans for the cities and the unincorporated areas of the project corridor. The following plans contain guidelines for developing the study area: Tulare County General Plan, City of Exeter General Plan, City of Lindsay General Plan, and the Tulare County Regional Transportation Plan.

Tulare County General Plan

The Tulare County General Plan, originally adopted in 1964, was most recently updated in February 2010 (2030 Update Tulare County General Plan). According to the general plan, the safe and efficient transport of people and goods within the county is of crucial importance to the well being of residents and the economic viability of the county; and the mobility of people and goods will continue to be one of the important issues the county has to face in the future (Transportation and Circulation Section, 2030 Update Tulare County General Plan). The general plan (Section 13.1, Roadways and Highways; TC-1.9, Highway Completion), also states the county should support state and federal capacity improvement programs for critical phases of the state highway system. Priority must be given to improvements to State Route 65, State Route 99, and State Route 198, including widening and interchange projects in the county (Transportation Circulation, General Plan, 1964, Modified).

City of Exeter General Plan

The Circulation Element of the City of Exeter General Plan 2000 to 2020 classifies three roadways as arterials: State Route 65 (Kaweah Avenue), Spruce Avenue (Road 204), and Visalia Road. The document describes an arterial as providing through-traffic movement on continuous routes through the city, generally linking other arterials and freeways, and often times connecting one city to another. The document describes Spruce Avenue (Road 204) as slated to be the “future” State Route 65, linking Exeter with Lindsay and Porterville to the south and Woodlake to the north.

City of Lindsay General Plan

The Circulation Element of the City of Lindsay General Plan describes State Route 65 as an essential link with other highways and transportation facilities serving the region and

the state. The document includes the proposed project as a bypass of Exeter. It states the project will be vital to achieving the city's goals and policies concerning economic development, including tourism by enhancing access to Sequoia National Park and Sequoia National Forest.

Tulare County Regional Transportation Plan

Development of the Tulare County transportation system is guided by their Regional Transportation Plan. This plan is a 25-year planning document required by state and federal law that is comprehensively updated every four years and includes programs to better maintain, operate and expand transportation. The plan was updated in 2011 and includes the project as a long range capacity-increasing project.

Environmental Consequences

The project is consistent with state, regional, and local plans. The proposed project is compatible with the Tulare County Regional Transportation Plan for a long range capacity-increasing project; Tulare County General Plan for improvements to State Route 65; City of Exeter General Plan for Spruce Avenue (Road 204) as the "future" State Route 65; and the City of Lindsay General Plan for an Exeter bypass.

The No-Build Alternative is not consistent with state, regional, and local plans and would result in no action being taken and no improvements made to State Route 65.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and /or mitigation measures are required.

2.1.2 Growth

This section addresses the relationship between the proposed project and area growth patterns. Growth inducement is defined as the relationship between the proposed project and growth within the project area. Factors affecting growth patterns depend on a range of economic forces that can be local, statewide, or even national in scope.

Regulatory Setting

The Council on Environmental Quality regulations that established the steps necessary to comply with the National Environmental Policy Act of 1969, requires evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences that may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The Council on Environmental Quality regulations, 40 Code of Federal

Regulations 1508.8, refer to these consequences as secondary impacts. Secondary impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act also requires the analysis of a project's potential to induce growth. California Environmental Quality Act Guidelines, Section 15126.2(d), require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."

Affected Environment

The 2030 Tulare County General Plan Update states that Urban Area Boundaries "establish areas around incorporated cities where the County and cities may coordinate plans and policies relating to street and highway construction, public utility systems, and future right of way preservation, affecting the orderly development of urban fringe areas." The General Plan Update also states that Urban Development Boundaries establish areas "delineating the area expected for urban growth over a 20-year period."

Environmental Consequences

Caltrans did a preliminary analysis to determine whether there would be a potential for project-related growth. Caltrans considered the interrelated factors of accessibility, project type, project location, and growth pressure. The screening process also took into consideration the General Plans of Tulare County and the cities of Exeter and Lindsay.

For the following reasons, based on the first-cut screening, no further analysis is required:

- The project proposes constructing an expressway on a new alignment with access control. According to the Caltrans Highway Design Manual, access control is achieved by acquiring rights of access to the highway from adjoining property owners and by permitting ingress (arriving) and egress (exiting) only at locations determined by the state. Currently, State Route 65 is a two-lane conventional highway with access into and out of driveways, local roads, and farm roads. This project would not create new access and would limit access to the new expressway from only four intersections (see Section 1.3, Alternatives). The project is not expected to make the areas east of the new alignment any more accessible than what currently exists.
- Tulare County has carefully developed planned growth as demonstrated by the Urban Area Boundaries and Urban Development Boundaries surrounding Exeter and Lindsay. The project should have little influence on future growth based on access control and established planning and zoning factors.

- The Rural Valley Lands Plan (revised from 2010) was adopted into the 2030 Tulare County General Plan Update. The plan was initiated to establish minimum parcel size for areas zoned for agriculture, and to develop a policy that is fair, logical, legally supportable, and consistent when using resource information to determine the suitability of rural lands for nonagricultural uses. It is not, therefore, reasonably foreseeable that the project would result in growth, given the project corridor is primarily zoned for agriculture.
- No Williamson Act contracts would be canceled because the amount of right-of-way needed for the project from each parcel would not be excessive. These smaller parcels can be annexed into adjacent existing Williamson Act parcels (see Section 2.1.3 Farmlands, Williamson Act).
- The project is not being proposed to support major new, unplanned development. Transportation improvements to the corridor have been on record since 1994 (2012 Caltrans Project Report). The project would help current planned land use within the cities of Exeter and Lindsay and Tulare County.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and /or mitigation measures are required.

2.1.3 Farmlands

Regulatory Setting

The National Environmental Policy Act and the Farmland Protection Policy Act (7 United States Code 4201-4209; and its regulations, 7 Code of Federal Regulations Part 658) require federal agencies, such as the Federal Highway Administration, to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

Affected Environment

The physical geography of Tulare County is composed of the San Joaquin Valley floor and the foothills and mountains of the Sierra Nevada that include Sequoia National Park, Sequoia National Forest, and the following wilderness areas: Mineral King, Golden Trout, and Domelands. These federal lands make up about 52 percent of the county. Farmland, including row crops, orchards, dairies, and grazing lands, make up about 43 percent of the county. Other uses, such as parks, incorporated cities, communities, hamlets, and infrastructure, make up the remaining land in the county (<http://www.co.tulare.ca.us/>).

The county covers about 4,863 square miles. The farmlands have allowed Tulare County to become the second-leading producer of agricultural commodities in the United States according to the county’s website. With two exceptions at the beginning of the project and near the end, the project corridor is primarily used for agriculture (see Section 2.1.1, Existing and Future Land Use). At the beginning of the project, State Route 65 is within the city limits of Lindsay in an area zoned for commercial business along the highway. Near the end of the project, Alternative 2 borders the urban fringe of the city of Exeter.

Citrus is the primary crop, but there are ranches with stone fruit, olives, vineyards, and row crops scattered throughout the project corridor. Table 2.4 lists the categories of agriculture use recorded by the Tulare County Assessor’s Office.

Table 2.4 Agricultural Land Use

Category	Total Acreage in Use	
	Alternative 1	Alternative 2
Orange Grove	1025.5	930.0
Citrus Grove	186.1	318.8
Stone fruit	329.1	354.9
Agriculture/Orchard	336.7	169.4
Vineyard	150.7	233.4
Field and Seed	9.6	6.0
Irrigated Crop	27.8	36.3
Open Land	8.1	49.8
Orchard/Olives	0.0	0.6
Agriculture/Rural Residence	25.1	0.0
Agriculture/Commercial	1.0	11.0
TOTAL	2172.3	2110.2

Source: Caltrans Right of Way 2012

Environmental Consequences

Both build alternatives need about 320 acres to construct the expressway and relocate utilities. Alternative 1 would need right-of-way from 114 property parcels used for vineyards, irrigated farmland, and stone fruit orchards. This alternative would primarily purchase land for right-of-way from parcels along Spruce Avenue (Road 204). The majority of new right-of-way from agricultural parcels would be partial acquisitions and is not expected to remove any parcel from farmland production.

Alternative 2 would require partial acquisition from 125 property parcels primarily used for vineyards, irrigated farmland, native pasture (grazing), stone fruit orchards, citrus groves, rural home sites, and commercial. This alternative would primarily purchase land for right-of-way from parcels currently in agricultural production. The majority of new right-of-way needed from agricultural parcels would be partial acquisitions and is not expected to remove any parcel from farmland production.

A Natural Resource Conservation Service Farmland Conversion Impact Rating was completed for the project. The Natural Resources Conservation Service determines the relative value of farmland to be converted by using a formula that weighs farmland classification, soil characteristics, irrigation, acreage, creation of non-farmable land, availability of farm services, and other factors. The Natural Resource Conservation Service determined that both build alternatives would convert farmland having a relative value of 79 points out of 100 possible points under these criteria. Additional points were factored in based on the Natural Resources Conservation Service's Corridor— Type Site Assessment Criteria. The total impact rating for both build alternatives is 155 points (see Appendix G). The Farmland Protection Policy Act requires consideration of impacts from those alternatives exceeding 160 points on the Natural Resource Conservation Service Farmland Conversion Impact Rating, and Caltrans considers measures that would minimize or mitigate farmland impacts if the impact rating is more than 160 points.

Table 2.5 displays farmland conversion information by alternative.

Table 2.5 Farmland Conversion by Alternative

Farmland Conversion by Alternative					
Alternatives	Land Converted (acres rounded)	Prime and Unique Farmland (acres rounded)	Percent of Farmland in Tulare County	Percent of Farmland in California	Farmland Conversion Impact Rating
1	320	63	0.0365	0.0012	155
2	321	63	0.0365	0.0012	155

Source: Form NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor-Type Projects).

Consultation with the Natural Resources Conservation Service has determined that 63 acres required for both build alternatives is considered prime and unique. The remaining land, about 254 acres per alternative, is considered farmland of statewide and local importance. Tulare County has about 867,965 acres of farmland and the farmland needed for the project represents less than 0.04 percent of the county’s farmland. According to the 2007 U.S. Department of Agriculture census, the most recent data available from that agency, California had about 25,365,695 acres of farmland. The right-of-way required for the project represents less 0.0012 percent of farmland in the state.

Williamson Act

The California Land Conservation program was formulated by the State Legislature to protect the agricultural, wetland and scenic areas of the state from unnecessary or premature conversion to urban uses. In Tulare County, the program is enforced through the provisions of the Land Conservation Act of 1965 and Sections 421 and 429 of the State Revenue and Taxation Code. Locally, the program is referred to as the Agricultural Preserve Program (<http://www.co.tulare.ca.us/>).

Properties under the Williamson Act must be in agricultural or related use. The minimum size of a new Agricultural Preserve is 20 acres or 1/32 of a section, whichever is less. Individual parcels less than 20 acres must be combined to meet the minimum size requirements. In the event a landowner has a parcel less than the minimum 20 acres and the land qualifies in terms of land use, the property owner may elect to annex to an already existing Williamson Act parcel if the parcel is adjacent or bordering their parcel (<http://www.co.tulare.ca.us/>).

No cancellation of any Williamson Act contracts is expected to occur because the right-of-way needed for the project from each parcel would be partial acquisitions, and the smaller parcels can be annexed into adjacent existing Williamson Act parcels, according to Tulare County’s Agricultural Preserve Program. Annexing smaller properties into existing Williamson Act properties appears to be an option property owners have already

used as indicated by the number of smaller property parcels under existing Williamson Act contracts.

Alternative 1 would require land from 41 property parcels currently under Williamson Act contracts. Only about 16 of these parcels are currently larger than 20 acres, and 16 parcels range between 0.5 acre and 13.9 acres. After right-of-way is acquired, 23 property parcels would be smaller than the 20-acre minimum required.

Alternative 2 would require land from 55 property parcels currently under Williamson Act contracts. Only about 20 of these parcels are currently larger than 20 acres, and 24 parcels range between 1.4 acres and 15 acres. After right-of-way is acquired for the project, 38 property parcels would be smaller than the 20-acre minimum required.

Avoidance, Minimization, and/or Mitigation Measures

The impact rating for both build alternatives was less than 160 points; therefore, no further avoidance, minimization or mitigation measures are necessary.

2.1.4 Community Impacts

2.1.4.1 Community Character and Cohesion

Regulatory Setting

The National Environmental Policy Act of 1969 as amended, established that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code 4331[b][2]). The Federal Highway Administration in its implementation of National Environmental Policy Act (23 United States Code 109[h]) directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

The City of Lindsay, incorporated in 1910, is at the south end of the proposed project where the State Route 65 four-lane expressway transitions into a two-lane conventional highway. The city (population 11,768) has a primary economy based on agricultural production and processing. This is a cohesive community with public facilities and services overseen by the city council and administered by various city departments such as, parks, water, refuse, and streets.

The Tulare County Local Agency Formation Commission states, “Lindsay was named the only unanimous choice as an All-America City for 1995. Since receiving the All-America City Award, Lindsay has continued to excel in the area of first time homebuyer programs and home rehabilitation programs. Lindsay continues to promote economic development by offering innovative business incentives for new and existing businesses. At the same time, Lindsay strives to ensure that growth is well planned, in a manner that respects the environment, including surrounding agricultural land.” The city retains much of the “Old Town” culture and is known for its murals and tourist oriented businesses such as art galleries and antique shops.

The 0.07-square-mile unincorporated community of Tooleville is also within the project corridor. This community is along the east side of Spruce Avenue (Road 204) between Avenue 273 (List Avenue) and Avenue 276 (Firebaugh Avenue). The 2010 United States census reported Tooleville's population as 339 people in 78 households. This small cohesive community has historically organized to advocate for their needs but has no public services or facilities except for a community well and a federally subsidized sewer system.

Environmental Consequences

Because the project would bypass the city of Exeter, the expectation is the project would enhance community cohesion by removing interregional truck and automobile traffic, leaving the existing roadway to slower moving local traffic. The project would not result in substantial physical impacts to the community: the project is on the city outskirts and would not destroy or disrupt human-made resources, existing community cohesion, and the availability of public facilities and services.

Widening State Route 65 through the city of Lindsay would require partial acquisitions from properties next to the existing highway zoned for highway commercial use. The project would not result in substantial physical impacts to the community: the project is

on the city outskirts and would not destroy or disrupt human-made resources, community cohesion, and the availability of public facilities and services.

The project would bypass the community of Tooleville to the west and is not expected to have a negative effect on that community. The project would not destroy or disrupt human-made resources, community cohesion, and the availability of public facilities and services.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and /or mitigation measures are required.

2.1.4.2 Relocations and Real Property Acquisition

Regulatory Setting

The Caltrans Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations Part 24. The purpose of Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons would not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix D for a summary of the Relocation Assistance Program.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code 2000d, et seq.). Please see Appendix C for a copy of the Caltrans Title VI Policy Statement.

Affected Environment

Caltrans Right of Way agents completed a Draft Relocation Impact Report in August 2012. The purpose of the report is to provide information on the effect of the proposed project on residential and non-residential occupants within the project alignments to Caltrans, local agencies, and the public. Specifically, the report discusses potential problems that may be caused by the displacement of existing structures and their occupants.

A Final Relocation Impact Report will be completed prior to completion of the final environmental document. The report will reflect the preferred alternative and any changes developed as a result of the circulation of the draft environmental document.

The sources used in the preparation of the relocation report were both primary and secondary in nature and include Caltrans Right of Way route estimates and design mapping, field surveys, U.S. Census Bureau statistics, public agencies and documents, local newspapers, multiple listing services, local business owners, local realtors and land brokers, the internet, and the websites of Tulare County and the Tulare County Housing Authority.

The report's displacement area consisted of the area between Hermosa Avenue in Lindsay and State Route 198 along Spruce Avenue (Road 204). The report describes the area as mainly a farming/agriculture area with large single-family estates, as well as mid-sized residences mixed in with farm laborer residences, mobile homes, and temporary housing on large parcels that are used for various agriculture purposes. The area consists mostly of ornamental horticulture and vineyards; however, there are also commercial businesses and sole proprietor businesses along with the single-family residences on both private and/or commercial use lots. The area consists of mostly older homes and mobile homes that range from low-income residences to large owner-operator agriculture estates. Historic properties are also present.

General occupancy characteristics are a mix of local owner-operator agricultural based estates, local farm-worker residents who mostly rent their homes, and single-family residences who enjoy a county-type rural lifestyle but commute to the urban areas for work. Also present are retired people who do not farm the land or commute. Lindsay to the south and Exeter to the west of the project provide all amenities of the immediate area: schools, libraries, shopping, employment opportunities, restaurants, vehicle and home repair businesses, gas and mini-mart businesses, large grocery stores, and medical facilities.

The city of Visalia is about 15 miles to the west of the north end of the project, and the city of Tulare is about 15 miles west of Lindsay, the south end of the project. Both cities have amenities such as retail shopping, theaters, hotels, recreation, a convention center, additional employment opportunities, hospital and emergency medical facilities, heavy equipment businesses, vehicles sales and repair businesses. Both cities are within the Replacement Area of the Draft Relocation Impact Report.

The Replacement Area, where displacees may move to or find employment, includes towns, rural areas, and the cities of Tulare, Visalia, Porterville, Woodlake, Lindsay, and Exeter.

Environmental Consequences

Table 2.6 summarizes the potential relocations from each build alternative.

Table 2.6 Summary of Potential Relocations

Type of Unit	Alternative 1	Alternative 2
Single-Family Residence	13	11
Mobile Home	1	3
Tenant Occupied Mobile Home	2	1
Business	1	1 (potential)
TOTAL	17	16

Draft Relocation Impact Report, August 2012

Alternative 1 would require right-of-way from an estimated 114 different property parcels, resulting in the following displacements: 13 single-family residences, one mobile home, two tenant-occupied mobile homes, and one business.

Alternative 2 would require right-of-way from an estimated 125 different property parcels, resulting in the following displacements: 11 single-family residences, three mobile homes, one tenant-occupied mobile home, and potentially one business.

For both build alternatives, the local housing market may have an effect on how fast replacement housing could be found. About 3 years would be required to appraise, acquire, and relocate all affected residents and businesses.

Avoidance, Minimization, and/or Mitigation Measures

To reduce potential displacement impacts by the project, several changes were made during the environmental studies and preliminary design. Alternative 1, moved to the west to avoid a historic resource (see Section 2.18), would avoid several businesses on Spruce Avenue (Road 204) such as LoBue Brothers Packing and Rocky Hill Antiques. In addition, at the beginning of the project, the build alignments were moved to the west to avoid displacement of four businesses: the Olive Tree Super 8 Motel, the Country Waffles Restaurant, Burger King, and the Shell gas station/mini-mart. The former Alternative 3 was dropped from further consideration, thereby avoiding any displacements to the community of Tooleville.

At the time of acquisition, when relocation would become necessary, all activities would then be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended (see Appendix D).

2.1.4.3 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President Bill Clinton on February 11, 1994. This executive order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined, based on the Department of Health and Human Services poverty guidelines for 2010, as \$22,050 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans' commitment to upholding the mandates of Title VI is evidenced by its Title VI Policy Statement signed by the director (see Appendix C).

Affected Environment

In addition to the 2010 U.S. Census data, information in this section was derived from the Tulare County, Lindsay, and Exeter websites. In addition, due to the rural nature of the project, field surveys of the project corridor were conducted to help identify any low-income or minority populations not readily apparent in the census data.

Although the project begins within the western city limits of Lindsay, project alignments travel north through land currently in agricultural production with isolated farmhouses or single-family residences sprinkled throughout. The project travels northwest away from the city of Lindsay before continuing north to bypass the community of Tooleville and skirt the eastern city limits of Exeter.

Table 2.7 shows the ethnic and racial data for Tulare County, the cities of Lindsay and Exeter, and the project corridor. The data for county and cities is from the 2010 U.S. Census (Tables QT-P3).

However, the ethnic and racial data on the project corridor was based on the 2000 U.S. Census because at the time of the study, the 2010 census data at the *census block level* was not yet available. A census block is the smallest geographic unit for which the U.S. Census Bureau tabulates 100-percent data.

The project corridor was within Census Tracts 14, 15, 15.01, 25, and 26.01. Each Census Tract had more than one Census Block Group divided into smaller Census Blocks. Census Tract maps and tables for the project corridor are in Appendix H.

In 2010, the population of Lindsay and Exeter differed by less than 1,500 people. The cities' percentage of population claiming one race was identical: 96.3 percent; the percentage for the project corridor and county was similar: 96.1 percent and 95.8 percent, respectfully. Except for the White and Hispanic or Latino categories, the percentages for both cities and the project corridor were about equal to or less than Tulare County's percentages.

Lindsay has a substantially higher percentage claiming Hispanic or Latino (of any race) (85.5 percent) than the county (60.6 percent), Exeter (45.5 percent), and the project corridor (46.6 percent). In regard to the White category, Lindsay claims 55.1 percent, Tulare County 60.1 percent, Exeter 69.2 percent, and the project corridor 49.5 percent.

Within the project corridor, the population claiming White (49.5 percent) and Hispanic or Latino (of any race) (46.6 percent) is almost equal. However, based on the block information available, it appears that one-third of the project corridor's population resides in Tooleville or the surrounding area of Tooleville (Census Tract 14, Block Group 4, Blocks 4000 and 4001). Within these two blocks, the Hispanic population is approximately 66.9 percent.



Table 2.7 Ethnic/Racial Data for the Project Area

	Tulare County 2010 US Census		City of Lindsay 2010 US Census		City of Exeter 2010 US Census		Project Corridor 2000 U.S. Census*	
	Population	Percent	Population	Percent	Population	Percent	Population	Percent
TOTAL	442,179	100	11,768	100	10,334	100	1644	100.0
One Race	423,755	95.8	11,331	96.3	9,950	96.3	n/a	98.5
White	265,618	60.1	6,480	55.1	7,150	69.2	814	49.5
Black or African American	7,196	1.6	85	0.7	67	0.6	4	0.2
American Indian or Alaskan Native	6,993	1.6	128	1.1	171	1.7	30	1.8
Asian	15,176	3.4	267	2.3	138	1.3	6	0.4
Native Hawaiian and Other Pacific Islander	509	0.1	4	0.0	8	0.1	0	0.0
Some Other race	128,263	29.0	4,367	37.1	2,416	23.4	n/a	n/a
Two or more races	18,424	4.2	437	3.7	384	3.7	26	1.5
Hispanic or Latino	268,065	60.6	10,056	85.5	4,703	45.5	766	46.6
Not Hispanic or Latino	174,114	39.4	1,712	14.5	5,631	54.5	n/a	n/a

Source: U.S. Census, 2000 and 2010

*Based on census block level data

Table 2.8 shows the median household income and percent of the population below poverty level for Tulare County and the cities of Lindsay and Exeter. The table includes data for the community of Tooleville since its population represents over one-third of the population within the project corridor.

Table 2.8 Median Household Income and Percent Below Poverty Level

2010 US Census Bureau	Tulare County	City of Lindsay	City of Exeter	Community of Tooleville
Median Household income (2006-2010)	\$43,851	\$30,085	\$43,690	\$43,977
Percent of persons below poverty level (2006-2010)	22.9 percent	34.7 percent	17.2 percent	0.0 percent

Source: 2010 U.S. Census Bureau

The median household income for Exeter (\$43,690) and Tooleville (\$43,977) are almost equal to the county’s (\$43,851); whereas, the median household income for Lindsay (\$30,085) is substantially less than the county by about \$13,000.

Exeter has fewer people living below the poverty level than Tulare County, 17.9 percent and 22.9 percent, respectfully. But Lindsay has 11.8 percent more people living below poverty level than Tulare County. None of Tooleville’s population lives below the poverty level (2010 U.S. Census Bureau, Table DP03).

Environmental Consequences

Both build alternatives avoid any displacements or relocations in the community of Tooleville; however, the community would no longer have direct access to the new expressway except through planned intersections at Avenue 280 (Rocky Hill Drive) and Avenue 289 (Myer Avenue). Both build alternatives would use the existing Spruce Avenue (Road 204) as a frontage road.

Relocation of approximately 15 homes (single-family residences, farm houses, or mobile homes) would occur scattered throughout the project corridor. Both alternatives avoid any displacements or relocations of residents within the city limits of Exeter and Lindsay.

Avoidance, Minimization, and/or Mitigation Measures

Based on the above discussion and analysis, the build alternatives would not cause disproportionately high and adverse effects on any minority or low-income population as per Executive Order 12898 regarding environmental justice.

2.1.5 Utilities/Emergency Services

Affected Environment

Overhead utility lines follow portions of existing State Route 65, existing Spruce Avenue (Road 204), and throughout areas proposed for the new alignment. The utility poles carry electrical power lines, fiber-optic cable, and telephone lines. Underground utilities such as natural gas and water tend to follow the existing State Route 65 and Spruce Avenue (Road 204). The utility ownership identified by field inspection includes Southern California Edison, Southern California Gas Company, Verizon, Charter Cable, and the Lindmore, Exeter, and Lindsay Strathmore irrigation districts.

The California Department of Forestry (Cal Fire) provides fire protection for the rural project corridor. The California Department of Forestry is in Exeter, along the existing State Route 65. Exeter and Lindsay also have volunteer fire departments.

The Tulare County Sheriff’s Department provides law enforcement for the rural project corridor. The closest sub-stations are in Visalia and Porterville. Exeter and Lindsay also have local police departments.

Ambulance services are dispatched and provided by the Tulare County Consolidated Ambulance Dispatch in the city of Tulare.

Environmental Consequences

Both Alternative 1 and Alternative 2 require moving utilities. Table 2.9 compares utility relocation by alternative.

Table 2.9 Utilities Affected

Utilities Affected	Alternative	
	1	2
Telephone	Yes	Yes
Power Lines	Yes	Yes
Gas (High Pressure)	Yes	No
Irrigation Lines	Yes	Yes
Water Lines - Fire hydrants	Yes	No
Fiber Optics	Yes	No
Sewage Treatment Plant	No	No

Source: Caltrans Office of Engineering

Alternative 1 would require over four times the number of relocations than Alternative 2. The difference is due to the location of the proposed alignments. Alternative 1 would parallel Spruce Avenue (Road 204) where utilities are already placed. Alternative 2,

however, is on a new alignment with a minimum of utilities and would not require moving any gas lines, water lines, or fiber optics.

Utilities may be temporarily shut off while being moved and transferred and may require temporary construction easements and new permanent easements.

During construction, fire protection, law enforcement, emergency, and other public services may be detoured to local roads but would be given priority access. Upon completion of the project, emergency response times are expected to improve.

Avoidance, Minimization, and/or Mitigation Measures

After a preferred alternative is identified and during the design phase of the project, a more detailed study would be conducted to determine the necessary relocation of utilities. Caltrans would meet with the effected utilities to coordinate the details for relocations and easements to avoid or minimize any interruption in service.

2.1.6 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

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

Caltrans is committed to carrying out the 1990 Americans with Disabilities Act by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

Affected Environment

Traffic and Transportation

In September 2009, Caltrans updated the Traffic Operational Analysis for intersections along the two main arterial roadways, State Route 65 (Road 196) and Spruce Avenue (Road 204). The intersections identified in the analysis included State Route 198 and Spruce Avenue (Road 204) south (State Route 245 north), and seven intersections along

the existing State Route 65 (Road 196) at State Route 198, Rocky Hill Drive (Avenue 280), Myer Avenue (Avenue 268), Sycamore Avenue (Avenue 256), State Route 137, Tulare Road (Avenue 232), and Hermosa Street. Table 2.10 summarizes the level of service for the existing year (2009) at nine existing intersections without the project.

Table 2.10 Existing Intersection Level of Service (LOS)

INTERSECTIONS	Existing in the Year 2009		
	Type of Control	Morning LOS	Afternoon LOS
State Route 198 and existing State Route 65 (Road 196)	Signal	E	D
State Route 198 and Spruce Avenue (Road 204) south and State Route 245 north	Signal	E	F
Rocky Hill Drive (Avenue 280) and existing State Route 65 (Road 196)	Signal	B	B
Myer Avenue (Avenue 268) and existing State Route 65 (Road 196)	Stop Sign	B	C
Sycamore Avenue (Avenue 256) and existing State Route 65 (Road 196)	Stop Sign	B	C
State Route 137 and existing State Route 65 (Road 196)	Signal	C	C
Spruce Avenue (Road 204) and existing State Route 65 (Road 196)	Signal	C	E
Tulare Road and existing State Route 65 (Road 196)	Stop Sign	F	F
Hermosa Street and existing State Route 65 (Road 196)	Signal	B	C

Source: Caltrans Updated Traffic Operational Analysis, 2009
Shaded areas show the worst level of service D-F

Quality of traffic flow ranges from level of service A (free flowing) to level of service F (gridlock). Only six intersections along the existing State Route 65 have a level of service C or better in the mornings: Rocky Hill Drive (Avenue 280), Myer Avenue (Avenue 268), Sycamore Avenue (Avenue 256), State Route 137, Spruce Avenue (Road 204) and Hermosa Street. Five of the same intersections have a level of service C or better in the afternoon: Rocky Hill Drive (Avenue 280), Myer Avenue (Avenue 268), Sycamore Avenue (Avenue 256), State Route 137, and Hermosa Street. The intersections on existing State Route 65 (Road 196) at Myer Avenue (Avenue 268), Sycamore Avenue (Avenue 256), and Tulare Road have stop signs. The other intersections have signals. The level of service becomes worse for all five intersections in the afternoon except at Rocky Hill Drive (Avenue 280) where level of service remained the same.

Pedestrian Facilities

There are no pedestrian facilities on the existing State Route 65 except within the city limits of Lindsay and Exeter. Both cities have provided sidewalks and pedestrian crossings and curb ramps. No pedestrian facilities such as sidewalks and pedestrian crossings were identified during field reviews for the project on Spruce Avenue (Road 204).

Bicycle Facilities

Currently, there are no bicycle facilities on Spruce Avenue (Road 204) or existing State Route 65, although bicyclists and pedestrians use the roadways anyway. Within the city limits of Exeter and Lindsay, both cities provide sidewalks for pedestrians and have bicycle paths. However, none of the existing bicycle paths are near the project limits.

Tulare County developed a Regional Bicycle Transportation Plan that includes two long-term bicycle path projects east of Exeter on Rocky Hill Drive (Avenue 260). The first project begins at the city limits and ends on Spruce Avenue (Road 204). The second project begins at Spruce Avenue (Road 204) and ends at Yokohl Valley Road.

Environmental Consequences

Traffic and Transportation

Table 2.11 shows the traffic conditions with and without the project for 2015 (the construction year), and 2035 (future conditions). Based on the 2009 data provided, 3 additional intersections were added for the future conditions representing the future level of services for the build alternatives.

Table 2.11 Intersection Level of Service (LOS)

INTERSECTIONS	No-Build Alternative					Build Alternatives				
	Type of Control	2015		2035		Type of Control	2015		2035	
		Morning LOS	Afternoon LOS	Morning LOS	Afternoon LOS		Morning LOS	Afternoon LOS	Morning LOS	Afternoon LOS
State Route 198 and existing State Route 65 (Road 196)	Signal	E	E	F	F	Signal	C	C	C	C
State Route 198 and Spruce Avenue (Road 204) south and State Route 245 north	Signal	F	F	F	F	Signal	C	C	C	C
Rocky Hill Drive (Avenue 280) and existing State Route 65 (Road 196)	Signal	B	B	C	D	Signal	B	B	B	B
Rocky Hill Drive(Avenue 280) and new State Route (Alternatives 1 and 2)	Stop Sign	E	F	F	F	Signal	A	A	A	A
Myer Avenue (Avenue 268) and existing State Route 65 (Road 196)	Stop Sign	B	D	C	F	Signal	A	B	A	B
Myer Avenue (Avenue 268) and new State Route 65 (Alternatives 1 and 2)	Stop Sign	E	F	F	F	Signal	A	A	B	C
Sycamore Avenue (Avenue 256) and existing State Route 65	Stop Sign	C	D	E	F	Signal	B	B	B	B
Sycamore Avenue/Avenue 256 and new State Route 65 (Alternative 1 and 2)	Stop Sign	F	F	F	F	Signal	A	B	B	D
State Route 137 and existing State Route 65	Signal	C	D	F	F	Signal	B	C	C	C
Existing State Route 65 and Spruce Avenue (Road 204)	Signal	E	F	F	F	Signal	B	B	B	B
Tulare Road and existing State Route 65	Stop Sign	F	F	F	F	Signal	B	B	C	D
Hermosa Street and State Route 65	Signal	C	C	D	F	Signal	B	C	D	D

Source: Caltrans Updated Traffic Operational Analysis, 2009
Shaded areas show the worst level of service D-F

Based on the data presented, in 2015, without the project, only two existing intersections would have level of service C or better for afternoon traffic, and five of the existing intersections would have level of service C or better for morning traffic. In 2035, however, level of service is expected to worsen. All existing intersections, except for one, would have level of service F for afternoon traffic and two existing intersections would have level of service C or better for morning traffic. Without the proposed project, traffic is expected to be congested and operate with considerable delays.

With the project, in 2015, all existing intersections are predicted to have level of service C or better for morning and afternoon traffic. In 2035, it is predicted that several existing intersections would experience a decrease in level of service. The Tulare Road and existing State Route 65 intersection would experience level of service D for both morning and afternoon traffic. The Hermosa Street and existing State Route 65 intersection and the Sycamore Avenue (Avenue 256) and the new alignment intersection would both experience level of service D for afternoon traffic.

The traffic analysis anticipated Alternative 2 would carry 5 to 10 percent less traffic because the existing Spruce Avenue (Road 204) alignment would remain in place and provide a local access road in addition to the new state route. As a result, Alternative 2 may have a slightly better level of service for four intersections:

- State Route 198 at State Route 245 (north side of the intersection); State Route 198 at Spruce Avenue (Road 204) (south side of the intersection)
- Rocky Hill Drive (Avenue 280) and the new State Route 65
- Myer Avenue (Avenue 268) and the new State Route 65
- Sycamore Avenue (Avenue 256) and the new State Route 65.

The project would not have a negative effect on access to businesses, residences, public resources, or public transportation. Public access is now available directly from State Route 65 to farms and residences east and west of the existing Spruce Avenue (Road 204). The project would alter traffic circulation by reducing direct access onto State Route 65 to the proposed intersections and by directing traffic onto the frontage roads or easements. However, this controlled access is expected to bring safer access on and off of State Route 65 and would reduce the conflict between slower-moving traffic (trucks and agricultural vehicles) and passenger vehicles.

Traffic would be routed west to existing State Route 65 after each phase (Phases 1–3) is constructed: Phase 1 at Avenue 244, Phase 2 at Avenue 268/Myer Avenue, and Phase 3 at Avenue 280/Rocky Hill Drive. However, because Spruce Avenue (Road 204) is

already being used as the preferred route for the corridor, it is anticipated travelers would continue to use Spruce Avenue (Road 204). Therefore, it is expected the project would have a minimal effect to traffic circulation.

Construction impacts on traffic and transportation would not be substantial because the proposed project would occur on new alignment for the most part.

Pedestrian Facilities

The project would not include any pedestrian facilities at the proposed intersections. Addressing the safety and mobility needs of bicyclist, pedestrians, and transit users within the project limits will be part of this project and is facilitated by creating “complete streets,” which will require collaboration among Caltrans’ functional units and stakeholders during the design phase of the project.

Bicycle Facilities

None of the build alternatives have any bicycle facilities planned on the expressway. During the design phase of the project, however, the county’s plans for two long-term bicycle paths on Avenue 280 (Rocky Hill Drive) would be incorporated into the design of the preferred alternative. Both build alternatives would provide wider paved shoulders for bicyclists to use through the project corridor, and frontage roads would offer an alternative route.

Avoidance, Minimization, and/or Mitigation Measures

Traffic and Transportation

During construction, a Traffic Management Plan would be developed to handle local traffic patterns and reduce delay, congestion, and the likelihood of accidents during construction. The Traffic Management Plan includes notifying the public of construction activities via media outlets, using changeable message signs, construction strategies, and use of the Central Valley Traffic Management Center that reduces congestion by monitoring traffic and informing the public via media outlets, such as radio and television.

Traffic delays are expected to be minimal because most of the build alternatives would be built on new alignments. By building the proposed project in construction phases and rerouting traffic to local roads, disruption to local and regional traffic would be minimized with both build alternatives.

Pedestrian Facilities

Curb ramps that are compliant with the Americans with Disability Act requirements would be provided at all improved intersections or new local road intersections, as well as at proposed ramp intersections as applicable.

Bicycle Facilities

Caltrans met with representatives from the Tulare Council of Governments in September 2011 regarding the proposed bicycle paths. It was agreed the project would incorporate the proposed bike lanes on Avenue 280 (Rocky Hill Drive) into their local road improvements and intersection proposals.

2.1.7 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969 as amended establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 United States Code 4331[b][2]). To further emphasize this point, the Federal Highway administration in its implementation of the National Environmental Policy Act (23 United States Code 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 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.” (Public Resources Code Section 21001[b]).

Affected Environment

Caltrans prepared a Visual Impact Assessment in April 2010 to assess the potential visual effects of the proposed project. The report used the Federal Highway Administration process in conjunction with the American Society of Landscape Architects. The study assessed the resource changes that would be introduced by the project and the corresponding viewer response to that change. This perceived change is analyzed and used to determine the degree of potential visual impact.

The regional landscape is a combination of landscape components that distinguishes it from the next. The landscape components of the regional landscape for the project area

are its landform (topography) and land cover. The region's landform is generally defined as flat, valley bottom farmland with distant rolling hills to the east. The land cover of the region includes vegetation and built development.

The existing landscape of the proposed project is viewed from each Landscape Unit and an inventory of on-site visual resources is developed. A Landscape Unit may be thought of as an outdoor room, perceived as a complete visual environment with certain visual characteristics that distinguish it from the next.

These visual resources are evaluated and rated for their aesthetic benefit and for their contribution to the existing character of the landscape and region. The existing visual resource inventory is then compared with the proposed project features, and any potential conflicts or impacts to existing visual resources are identified.

The proposed project area includes three landscape units representing (A) agricultural lands, (B) the railroad crossings, and (C) the waterway or the Friant-Kern canal.

Two viewer groups were considered for the evaluation of viewer response: (1) those with views from the road and (2) those with views of the road.

Four observer viewpoints were selected for their effectiveness in either representing the typical visual character of the project or showing unique project components or affected resources: (1) views from the southern end of the project, near Avenue 248, (2) views from the section of the project that crosses the railroad as you go over the structure, (3) a side view showing the undercrossing at the railroad, and (4) views from the northern section of the project where the project crosses the Friant-Kern Canal, near Avenue 292 along Spruce Avenue (Road 204).

The visual quality for each landscape unit within the study area was evaluated and rated using three evaluative criteria: vividness, intactness, and unity.

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

The three evaluative criteria were averaged to determine overall visual quality for each viewpoint. A numerical rating between 1 and 7 was assigned for the existing quality from

each viewpoint, with 1 having the lowest value and 7 having the highest value. The numerical differences between the existing and simulated proposed conditions were compared to the expected sensitivities of potential viewer groups in order to determine a level of visual impact.

Environmental Consequences

The existing setting of the project area is primarily rural or agricultural landscape, and its overall existing visual quality is average. Alternative 2, however, is located almost entirely in agricultural landscapes and would require the removal of more orchards than Alternative 1.

Except for Landscape Unit A, the impacts of each alignment are very similar because both alignments fall within the same type of landscape and include common design features, such as: construction of a two-lane expressway on a four-lane right of way, construction of overhead crossings at the San Joaquin Valley Railroad crossings, construction of new bridges over the Friant-Kern Canal, and improvement of local road intersections. The following section provides a summary of the potential visual changes for each landscape unit. Because the visual impacts of both build alternatives are similar, the simulations are the same for both build alternatives

Landscape Unit A - Agriculture, Observer Viewpoint 1: This landscape unit consists of mainly agricultural land with mature orchards. The observer viewpoint shows the view from Spruce Avenue (Road 204) looking north near Avenue 248 and includes an existing view and a simulated view with a two-lane expressway on a four-lane right of way. The Alternative 2s existing view includes the orchard on both sides of the road.



Existing view

Location	Vividness/	Intactness/	Unity/	(=V+I+U/3)
OV1 Existing	4.0	5.0	5.0	4.7

The ratings show that this landscape unit is moderate in visual quality; topography is flat and the roadway is straight, lacking memorability or visual interest for the highway traveler. The mature and continuous vegetation along both sides of the road converge at the horizon, contributing to unified view, which results in medium-high unity and intactness.

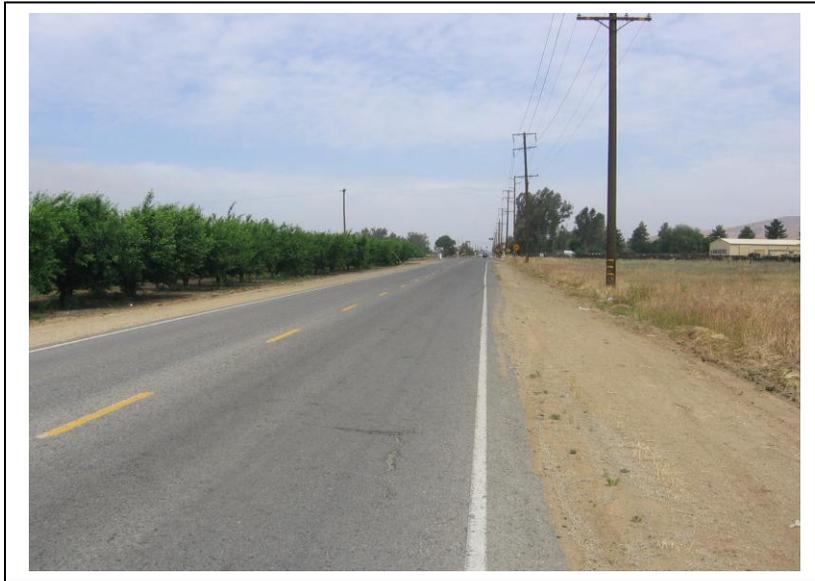


Simulated view for two-lane expressway

Location	Vividness/	Intactness/	Unity/	(=V+I+U/3)
OV1, Existing	4.0	5.0	5.0	4.7
OV1, 2-lane Expressway	3.5	5.0	4.5	4.3
Visual Quality Difference =				-0.4

The right-of-way area is wider, and the road becomes a two-lane expressway. Although the roadway remains two lanes, the wider shoulders and the removal of existing vegetation create a bigger gap between the orchards, causing the ratings for vividness and unity to drop.

Landscape Unit B – Railroad Crossing, Observer Viewpoint 2 and Observer Viewpoint 3: This landscape unit is where Spruce Avenue (Road 204) crosses the railroads at Avenue 256 (Sycamore Avenue) and Avenue 264 and where overhead structures would be built. The first view considered for this landscape unit, Observer Viewpoint 2 (OV2), represents the view from the road (a driver or passenger in a vehicle).



Existing view

Location	Vividness/	Intactness/	Unity/	(=V+I+U/3)
OV2 Existing	3.0	3.5	3.5	3.3

The existing view of Observer Viewpoint 2 shows Spruce Avenue (Road 204) as it approaches the at-grade railroad crossing at Avenue 256 (Sycamore Avenue). The ratings show that this landscape unit is moderately low in visual quality; the topography is flat and the roadway straight. The orchard on one side and the open field on the other create a lack of continuity for this section of the road, and no visual interest is provided for the highway traveler.



Simulated view for two-lane expressway

Location	Vividness/	Intactness/	Unity/	(=V+I+U/3)
OV2, Existing	3.0	3.5	3.5	3.3
OV2, 2-lane Expressway	3.5	3.0	3.0	3.0
Visual Quality Difference =				-0.1

With construction of an overhead, the elevated road would allow a view that could extend beyond the surrounding area. The vividness increases slightly as distant views become more prominent. Intactness and unity decrease, however, as the roadway takes on a less rural character.

Landscape Unit B – Railroad Crossing, Observer Viewpoint 3: The second view considered for this unit, Observer Viewpoint 3, shows what the railroad intersection at Spruce Avenue (Road 204) and Avenue 264 would look like to the viewers of the road (the people who can see the roadway project) before and after the proposed project is constructed.



Existing view

Location	Vividness/	Intactness/	Unity/	(=V+I+U/3)
OV3 Existing	4.0	3.0	3.0	3.3

The ratings show that this landscape unit is moderate in visual quality. Although the railroad tracks add visual interest, the unity and intactness ratings are low due to the lack of cohesiveness with the mixture of orchards, open fields, and rural homes.



Simulated view for two-lane expressway

Location	Vividness/	Intactness/	Unity/	(=V+I+U/3)
OV3, Existing	4.0	3.0	3.0	3.3
OV3, 2-lane Expressway	3.5	2.5	2.5	2.8
Visual Quality Difference =				-0.5

The proposed overhead structure will interrupt distant views for some of the highway neighbors and make the improved roadway more prominent, slightly decreasing the rural character of the area. The intactness and unity are low due to the added visually-encroaching features.

Landscape Unit C – Waterway, Observer Viewpoint 4: This landscape unit consists of the northern section of the proposed project where Spruce Avenue (Road 204) crosses the Friant-Kern Canal near Avenue 292.



Existing view

Location	Vividness/	Intactness/	Unity/	(=V+I+U/3)
OV4 Existing	3.0	3.0	2.5	2.8

Observer Viewpoint 4 shows the existing approach of Spruce Avenue (Road 204) at the Friant-Kern Canal. The ratings show that this landscape unit is low in visual quality and there is no coherent or harmonious visual pattern within the landscape



Simulated view for two-lane expressway

Location	Vividness/	Intactness/	Unity/	(=V+I+U/3)
OV4, Existing	3.0	3.0	2.5	2.8
OV4, 2-lane Expressway	3.0	3.0	2.0	2.7
Visual Quality Difference =				-0.1

The project proposes construction of a new bridge at the Friant-Kern Canal. The visual quality of the area remains low, and the unity drops slightly due to the added visually-encroaching features.

Based on the simulations, the visual quality ratings were reduced with the proposed project. The reduction of vividness, intactness and unity is due primarily to the widened roadway and loss of vegetation. Visual impacts consist of the removal of some buildings and some mature trees along the roadside, as well as the addition of overhead structures.

The improved road would have a visual impact on the highway user and the local community in general. Potential impacts are expected for the rural residents or highway neighbors near the proposed alignments who would get more exposure to the highway.

For highway users or regional commuters, the improved road would look similar to the existing character of State Route 65 south of the project limits where State Route 65 is a four-lane highway with overhead structures and bridges similar to the ones proposed for this project.

Although the physical change resulting from a two-lane expressway with structures and frontage roads is substantial and would decrease the rural character of the area, it would not affect the overall character of the landscape. The area would still be perceived as a rural.

Avoidance, Minimization, and/or Mitigation Measures

Visual impacts can be managed by avoidance, minimization and/or mitigation. To manage the proposed impacts management objectives and management recommendations must relate to the adverse visual impacts associated with the project. The following management objectives and recommendations are intended to manage and lessen impacts to the visual quality of the proposed project:

- **Management Objective**—Conserve visual unity and intactness for all viewers. Management recommendations are as follows:
 - a) Existing mature vegetation currently providing a landscape buffer from the highway for rural residents should be preserved where possible or replaced.
 - b) Existing palms should be protected in place where possible; if not, they should be moved and incorporated into a highway planting plan.
 - c) Functional highway planting should be included to reduce the visual scale of the new structures and to soften their appearance.
 - d) For landform continuity and to increase the potential of slope re-vegetation and stabilization, slope ratio should be 1-to-4 or flatter and should include rounding top and bottom of slopes.

- **Management Objective:** Minimize loss of intactness resulting from added structures. Management recommendations are as follows:
 - a) Functional planting, as recommended above will reduce the visual scale of the new structures and soften their appearance.
 - b) In addition, architectural treatments, such as color and/or textures applied to vertical surfaces or structures, should relate to other structures within the region. These aesthetic treatments should be coordinated through the Landscape Architecture Unit and the Bridge Aesthetics Unit (Caltrans Headquarters) throughout the various phases of the project.

Although the implementation of management recommendations may not eliminate all the visual impacts, it will reduce them, lessening the substantial changes in the overall visual quality.

2.1.8 Cultural Resources

Regulatory Setting

“Cultural resources” as used in this document refers to all “built environment” resources such as structures, bridges, railroads, and water conveyance systems, culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. The following laws and regulations deal with cultural resources:

The National Historic Preservation Act of 1966, as amended, sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800). On January 1, 2004, a Section 106 Programmatic Agreement between the Advisory Council, the Federal Highway Administration, State Historic Preservation Officer, and Caltrans went into effect for Caltrans projects, both state and local, with Federal Highway Administration involvement. The programmatic agreement implements the Advisory Council’s regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The Federal Highway Administration’s responsibilities under the programmatic agreement have been assigned to Caltrans as part

of the Surface Transportation Project Delivery Pilot Program (23 Code of Federal Regulations 327) (July 1, 2007).

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act that 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, as well as California Public Resources Code Section 5024.1 that which established the California Register of Historical Resources. Public Resources Code Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way.

Affected Environment

Caltrans initiated cultural studies for the project as early as March 2001, prior to the final delineation of the Area of Potential Effects. Because of this, a broad study area was defined and investigated with the knowledge the final Area of Potential Effects would be a subset of the larger study. The Area of Potential Effects was established in coordination with Caltrans professionally qualified staff.

Cultural Resources/Archaeology

The Historic Property Survey Report completed for the project in October 2004 included an Archaeological Survey Report (May 28, 2004). Subsequent archaeological surveys were conducted in July 2009; January 7, 2010; May 17 and 19, 2010; June 2, 3, 17, and 21, 2010; and December 1, 2011 to address proposed project design changes outside the 2004 archaeological study area. A Supplemental Historic Property Survey Report (June 2012) was completed that included a Supplemental Archaeological Survey Report (June 2012). The 2012 reports included all the previous studies and surveys completed for the project.

One hundred percent of the area studied for the 2012 Supplemental Archaeological Survey Report has been affected by historic-era land use such as road construction and agricultural use. Disking in fields and orchards has resulted in soil disturbance to at least 3 feet in depth. No previously recorded cultural resources were reported within or adjacent to the project area.

There have been four archaeological surveys conducted within the project area and two additional surveys in the general area, all resulting in negative findings. Research for the studies included searching the following databases:

- National Register of Historic Places 1988 (Web Update March 2002)
- California Inventory of Historical Resources 1976
- California Points of Historical Interest 1990 (updates to December 1996)
- Archaeological site records at the Southern San Joaquin Valley Information Center of the California Historical Resources Information System, California State University, Bakersfield (RS#01-039, March 22, 2002)

The archaeological study area was systematically surveyed using pedestrian transects of 15-meter intervals (about 50 feet apart) that paralleled the existing roadway. The existing and proposed new right-of-way for the project was completely surveyed.

The archaeological vertical Area of Potential Effects for the project was addressed through examination of rodent burrows, plowed and scraped ground, and open excavations in the orchards after tree removal, preparation for tree planting, or other farm related activities.

Architectural Resources

In the 2004 Historic Resources Evaluation Report, 74 architectural properties were identified within the Area of Potential Effect and were formally evaluated. For architectural resources, the Area of Potential Effects includes all parcels with buildings or structures that lie within or are encroached upon (directly or indirectly) by the proposed right-of-way. Therefore, to incorporate the parcels that include the buildings and structures needing evaluation, in some areas the architectural Area of Potential Effects is slightly larger than the archaeological Area of Potential Effects. The 2012 Supplemental Historic Resource Evaluation Report formally evaluated three additional properties within the project's expanded Area of Potential Effects.

Of the 77 properties evaluated (2004 and 2012), Caltrans determined five properties eligible for inclusion in the National Register of Historic Places:

1. Thomas A. Pogue House, 1600 Palm Drive, Exeter
2. W. Todd Dofflemeyer House, 2001 E. Marinette Avenue, Exeter
3. Friant-Kern Canal (crossing Spruce Avenue/Road 204) and the canal bridges that contributed to eligibility
4. Bridge 46C-0239 on Marinette Avenue (contributing bridge)

5. Bridge 46C-0182 on Spruce Avenue/Road (contributing bridge)

Caltrans determined two structures, the Dofflemeyer House and the Pogue House, eligible for inclusion in the National Register of Historic Places under Criteria B and C. Criterion B includes resources associated with the life of a person significant in our past. Criterion C includes resources with distinctive characteristics of a type, period, or method of construction, work of a master, high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction. Both houses are historical resources for the purposes of the California Environmental Quality Act.

The Dofflemeyer House is eligible at a local level of significance under Criterion B for its association with W. Todd Dofflemeyer and Criterion C as a locally outstanding example of Prairie style architecture. The house remains at its original location and retains its setting amid rural orchard lands. The property also retains integrity of design, materials, and workmanship from the period of significance. The house was built in 1906 and was sold to Thomas J. Dofflemeyer in 1912. The Dofflemeyers were known as local movers and shakers pioneering the local citrus and grape packing industries in the early twentieth century.

The Thomas A. Pogue House is eligible at a local level of significance under Criterion B for its association with Thomas A. Pogue and Criterion C as a locally outstanding example of Craftsman style architecture. The house retains the distinctive character-defining features of the best examples of the Craftsman style. Thomas A. Pogue built the house in 1908 after purchasing ranch lands in the Exeter area. He was a member of the prominent Pogue family in Tulare County. The Pogues were early settlers and developers of farms and citrus orchards at Lemon Cove.

The Friant-Kern Canal was listed on the National Register of Historic Places in 1997 as an exceptional structure less than 50 years old. The structure is now more than 50 years old and is eligible for its contribution to agriculture and engineering. The canal is eligible at a state level of significance under Criteria A and C (period of significance of 1945–1951), and an exceptional significance founded in the role of the canal as a key component in the original Central Valley Project. Criterion A includes events that have made a significant contribution to the broad patterns of our history. It is also considered a historical resource for the purposes of the California Environmental Quality Act.

The two county-owned bridges (46C-0182 and 46C-0239) were also determined by the State Historic Preservation Office to be contributing elements to the Friant-Kern Canal's eligibility to the National Register of Historic Places as part of its original design and

construction. The 2004 State Historic Preservation Office concurrence letter is included in Appendix C.

On June 18, 2012, Caltrans submitted a letter to the State Historic Preservation Officer requesting concurrence on the formal evaluation of the three additional properties within the project's expanded Area of Potential Effects in the 2012 Supplemental Historic Resource Evaluation Report (see Appendix C).

There is no indication of a historic landscape in the project area.

Environmental Consequences

Cultural Resources/Archaeology

No prehistoric or historic-era archaeological resources were discovered within the project's Area of Potential Effects (Historic Property Survey Report, October 2004; Supplemental Archeological Survey Report, June 2012).

However, in direct consultation with local tribal representatives, Caltrans developed the District 06 Cultural Resources Inventory of Rural Conventional Highways (2010), which includes segments of State Route 65. While no archaeological sites were specifically identified along State Route 65 within the current project limits, culturally sensitive resources were identified in the vicinity of the project, including areas of cultural significance to the local Native Americans. The proposed alternative alignment along the county road, Spruce Avenue (Road 204), was not included in the inventory but falls within the project limits for the proposed project (Memorandum from the District 06 Native American Coordinator, June 25, 2012).

Architectural Resources

The proposed project would avoid four eligible properties and have a "no adverse effect" to the Friant-Kern Canal, the fifth eligible property.

When Alternative 3 was dropped from further consideration, the project's potential effect to Bridge 46C-0239 was eliminated.

Both Alternative 1 and Alternative 2 avoid four of the five eligible properties but cannot avoid crossing the Friant-Kern Canal. Both alternatives would build new bridges over the canal. Caltrans determined neither alternative would have an adverse effect on the canal.

De Minimus Finding

Both build alternatives would cross the Friant-Kern Canal, a historic structure eligible for the National Register of Historic Places. Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” Under Section 4(f), historic sites must be avoided if an avoidance alternative is determined prudent and feasible.

- However, based on the determination of “no adverse effect” as stated in the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Section 6009, Caltrans has determined the use of the historic property as a *de minimis* use of an eligible property. *De minimis* impacts on historic sites are defined as the determination of either "no adverse effect" or "no historic properties impacted" in compliance with Section 106 regulations, including State Historic Preservation Officer's written concurrence. Caltrans has submitted a letter to the State Historic Preservation Officer notifying the agency of Caltrans' intent to adopt the *de minimis* finding.
- The project would require construction of new bridges that span the canal. New bridge construction would not modify the canal's use nor diminish the integrity of design, materials, and workmanship of the historic structure because all construction would occur on the outside canal banks. Construction of the new bridges would include placing bridge abutments into the outside canal bank and using fill (dirt) to build up the outside of the canal banks to support the approaches to the bridges.

Avoidance, Minimization, and/or Mitigation Measures

Architectural Resources

Although the build alternatives avoid any effect to the two historic homes within the project limits, landscaping would be used to minimize any visual impacts.

Cultural Resources/Archaeology

Additional surveys will be required if project plans are changed to include previously un-surveyed areas. Consultation with Native Americans and notifications of the project updates, revisions, and changes to the project is ongoing. Expansion of the Area of Potential Effects for construction easements, utility relocation, or vertical Area of Potential Effects could result in supplemental studies.

If cultural materials or remains are encountered during construction, it is the policy of Caltrans that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the discovery.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities must cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the coroner recognizes the human remains to be those of a Native American, or has reason to believe that the remains are those of a Native American, the coroner must contact the Native American Heritage Commission within 24 hours. Pursuant to Public Resources Code Section 5097.98, the Native American Heritage Commission would then identify a Most Likely Descendent. The District 6 Environmental Branch will be informed of the discovery immediately by personnel responsible for the exposure. The Native American Heritage Commission will facilitate discussions with the property owner, Caltrans, and the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outline in 23 Code of Federal Regulations 650, Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values impacted by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent change of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.

Affected Environment

A Location Hydraulic Study was completed for the project in August 2012. The project is primarily in an agricultural area west of the Sierra Nevada Mountain Range and foothills. Most of the project area consists of flat terrain with small changes in elevation.

The climate for the project area consists of an average rainfall of 12.7 inches distributed throughout the year with the summer months relatively dry. The average high temperature is 98 degrees Fahrenheit in July to an average low of 64 degrees Fahrenheit in December. The climate is classified as interior Mediterranean.

The Flood Insurance Rate Map designates the project area as “Zone X” on maps 06107C1300E, 06107C1305E, 06107C0960E, and 06107C0970E. All the maps have the effective date of June 16, 2009. The project area has two different areas designated as Zone X: areas determined to be outside of the .02 percent annual chance floodplain, and areas of 0.2 percent annual chance of flood; areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual change flood.

Environmental Consequences

The project does not constitute a significant floodplain encroachment as defined in 23 Code of Federal Regulations, Section 650.105(q) and does not have any significant impact on the 100-year floodplain.

The project crosses a Zone X flood zone. Alternative 1 is mostly in Zone X outside of 0.2 percent chance annual floodplain. Alternative 2 is mostly in the Zone X with 0.2 percent chance annual floodplain. Neither alternative is within a regulatory floodway.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are needed.

2.2.2 Water Quality and Storm Water Runoff

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System permit. Known today as the Clean Water Act, Congress has amended it several

times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the National Pollutant Discharge Elimination System permit scheme. The following are Important Clean Water Act sections:

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

The objective of the Clean Water Act is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

U.S. Army Corps of Engineers issues two types of 404 permits: Standard and General permits. There are two types of General permits, Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of U.S. Army Corps of Engineer’s Standard permits. For Standard permits, the U.S. Army Corps of Engineers decision to approve is based on compliance with U.S. Environmental Protection Agency’s Section 404 (b)(1) Guidelines (U.S. Environmental Protection Agency Code of Federal Regulations 40 Part 230), and whether permit approval is in the public interest. The Section 404(b)(1) Guidelines were developed by the U.S. Environmental Protection Agency in conjunction with U.S. Army

Corps of Engineers, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that U.S. Army Corps of Engineers may not issue a permit if there is a least environmentally damaging practicable alternative, to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences. As stated in the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate marine sanctuary protections, or cause “significant degradation” to waters of the U.S. In addition every permit from the U.S. Army Corps of Engineers, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 Code of Federal Regulations 320.4. A discussion of the least environmentally damaging practicable alternative determination, if any, for the document is included in the Wetlands and Other Waters section.

State Requirements: Porter-Cologne Water Quality Control Act

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

The State Water Resources Control Board and Regional Water Quality Control Boards are responsible for establishing the water quality standards (objectives and beneficial uses) required by the Clean Water Act, and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable Regional Water Quality Control Board’s Basin Plan. States designate beneficial uses for all water body phases, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water phases are based on the designated use and vary depending on such use. In addition, each state identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with Clean Water Act Section 303(d). If a state

determines that waters are impaired for one or more constituents and the standards cannot be met through point source controls, the Clean Water Act requires the establishment of total maximum daily loads. Total maximum daily loads specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The State Water Resources Control Board administers water rights, water pollution control, and water quality functions throughout the state. Regional Water Quality Control Boards are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollution Discharge Elimination System Program

Municipal Separate Storm Sewer Systems

Section 402(p) of the Clean Water Act requires the issuance of National Pollution Discharge Elimination System permits for five categories of storm water dischargers, including municipal separate storm sewer systems. The U.S. Environmental Protection Agency defines a municipal separate storm sewer systems as any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that are designed or used for collecting or conveying storm water. The State Water Resources Control Board has identified Caltrans as an owner/operator of a municipal separate storm sewer systems by the State Water Resources Control Board. This permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The State Water Resources Control Board or the Regional Water Quality Control Board issues National Pollution Discharge Elimination System permits for five years, and permit requirements remain active until a new permit has been adopted.

The Caltrans municipal separate storm sewer systems permit, under revision at the time of this update, contains three basic requirements:

1. Caltrans must comply with the requirements of the Construction General permit (see below).
2. Caltrans must implement a year-round program in all parts of the state to effectively control storm water and non-storm water discharges.

3. Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary construction best management practices and other measures.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The Statewide Storm Water Management Plan assigns responsibilities within Caltrans for using storm water management procedures and practices, as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The Statewide Storm Water Management Plan describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of best management plans. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest Statewide Storm Water Management Plan to address storm water runoff.

Part of and appended to the Statewide Storm Water Management Plan is the Storm Water Data Report and its associated checklists. The Storm Water Data Report documents the relevant storm water design decisions made regarding project compliance with the MS4 National Pollution Discharge Elimination System permit. The preliminary information in the Storm Water Data Report prepared during the project initiation document phase would be reviewed, updated, confirmed, and if required, revised in the Storm Water Data Report prepared for the later phases of the project. The information contained in the Storm Water Data Report may be used to make more informed decisions regarding the selection of best management practices and/or recommended avoidance, minimization, or mitigation measures to address water quality impacts.

Construction General Permit

Construction General Permit (Order No. 2009-009-Department of Water Quality), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites which result in a disturbed soil area of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment

resulting from the activity as determined by the Regional Water Quality Control Board. Operators of regulated construction sites are required to develop storm water pollution prevention plans; use sediment, erosion, and pollution prevention control measures; and obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the risk level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan. In accordance with the Caltrans Standard Specifications, a Water Pollution Control Plan is necessary for projects with a disturbed soil area of less than one acre.

Section 401 Permitting

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

In some cases the Regional Water Quality Control Board may have specific concerns with discharges associated with a project. As a result, the Regional Water Quality Control Board may issue a set of requirements known as Waste Discharge Requirements under the State Water Code that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be used for protecting or benefiting water quality. Water Discharge Requirements can be issued to address both permanent and temporary discharges of a project.

Affected Environment

Caltrans completed a Water Quality Assessment in August 2012 to evaluate the potential effect of the project on water quality. The water quality assessment identifies effects on surface water and groundwater resources.

The project area is along the boundary between the Sierra Nevada Mountain Range to the east and the Diablo Range on the west. The San Joaquin Valley is a topographic and structural trough that has received a thick accumulation of sediments from the Sierra Nevada Mountain Range to the east and the coastal ranges on the west.

The soil type is classified as National Resource Conservation Service Hydrologic Soil Group D and B with about 90 percent of the project classified as Hydrologic Soil Group D. Hydrologic Soil Group D consists of silt loam or loam. These soils have a moderate infiltration rate when thoroughly wet.

Surface Water - The project is within the South Valley Floor Hydrologic Unit, Kaweah Delta Hydrologic Area, Hydrologic Sub Area 558.10. A review of water quality information for the Regional Water Quality Control Board, and the Environmental Protection Agency's Watershed information web sites indicate that surface water is generally of good quality.

The Friant-Kern Canal and Lewis Creek are the only surface waters that cross the proposed project area. The Friant-Kern Canal originates at Millerton Lake and parallels the foothills of the Sierra Nevada Mountain Range along the eastern edge of the Valley. Water is diverted from the canal to the irrigation districts along its course to Bakersfield in the south. Spruce Avenue (Road 204) crosses the Friant-Kern Canal on a small bridge just south of State Route 198.

Lewis Creek is a channelized intermittent creek that originates in the Sierra Nevada Mountain Range and travels westward to eventually empty into local ditches and canals used for irrigation purposes. The creek crosses the Friant-Kern Canal via a siphon and passes under Spruce Avenue (Road 204) via two culverts.

The Friant-Kern Canal and Lewis Creek are not listed on the Environmental Protection Agency's 2010 303(d) list and are not considered a high-risk area (Municipal Recharge Facilities or domestic water supply). The Clean Water Act requires states to identify water bodies that are considered impaired, which means the water body does not meet water quality standards. States must then place these water bodies onto a list referred to as the "Clean Water Act Section 303(d) List of Water Quality Limited Segments."

Groundwater - Groundwater throughout the basin is suitable for agricultural water supply, municipal and domestic water supply, and industrial use.

The project is in the Kaweah Subbasin of the San Joaquin Valley Groundwater Basin. According to the Department of Water Resources, the groundwater sub-basin is underlain by crystalline bedrock of the Sierra Nevada Mountain Range and consists of lands in the Kaweah Delta Water Conservation district. The sub-basin includes Kaweah River and St. Johns River (both outside the project area). The primary source of recharge to the area is the Kaweah River (Bulletin 118, Department of Water Resources, California's Groundwater, 2003).

Environmental Consequences

The project has the potential of having long-term water quality impacts from the operation and maintenance of the project. Based on the highway storm water runoff data collected by the Caltrans Stormwater Water Research and Monitoring Program, these impacts would include typical pollutants, such as, heavy metals, oil and grease, sediment and litter.

However, by complying with State Water Resources Control Board and Regional Water Quality Control Board regulations, there would be no water quality impacts associated with the implementation of this project because these regulations would ensure that water quality is maintained to the maximum extent practicable for potential development projects.

The project has the potential of having short-term water quality impacts during construction; however, with the incorporation of temporary and permanent best management practices, no adverse impacts are expected from the project during construction or operation. This project is not within 303(d) listed water bodies that include spawning/migration designations and is considered risk-level 2 with medium sediment and receiving water risk. No hazardous materials were identified within the project limits, and the project would not involve reuse of soils with aerially deposited lead. After the preferred alternative is identified, additional studies are recommended, however. Please see Section 2.2.4, Hazardous Waste or Material.

Potential short-term impacts were analyzed by determining the amount of disturbed soil area for the project. Potential long-term impacts were analyzed by determining the proposed additional impervious surface area for the project. Impacts to surface and groundwater quality from the discharge of highway runoff were analyzed by comparing water quality with the average storm water runoff concentration from state highways.

The existing impervious surface area for Alternative 1 is 6.15 acres. The total disturbed soil area (construction impacts) for the project for Alternative 1 is estimated at 205.77

acres. After the alternative is built, the estimated impervious area will be about 76.26 acres.

The existing impervious surface area for Alternative 2 is 6.11 acres. The total disturbed soil area for the project for Alternative 2 is estimated to be 186.74 acres and after the Alternative 2 is constructed, the estimated impervious area will be approximately 71.11 acres.

Implementation of the Storm Water Pollution Prevention Plan is expected to reduce and minimize the amount of soil released from the construction site. Short-term impacts caused by each of the build alternatives include potential increase in sediment loads because of removal of existing groundcover and disturbance of soil during grading. The temporary residual increase in sediment loads from construction areas is unlikely to alter the hydrologic response (erosion and deposition) downstream in the hydrologic subarea. The sediment processes in these areas would be reduced because all disturbed soil areas would be stabilized before completion of the construction project with permanent landscaping and/or permanent erosion control measures.

All build alternatives would span both waterways within the project limits. The proposed project would require an Army Corps of Engineers Section 404 Nationwide Permit for permanent impacts to Waters of the United States and a Section 401 Certification for a Water Discharge Permit from the State Regional Water Quality Control Board.

Avoidance, Minimization, and/or Mitigation Measures

The project is covered by the Caltrans Statewide National Pollutant Discharge Elimination System permit Number CAS000003 (State Water Resources Control Board No. 99-06-Department of Water Quality). Under this permit the required Statewide Storm Water Management Plan directs that potential impacts to water quality (erosion, discharges of hazardous material, disruption of natural drainage patterns, etc.) be addressed in the planning, design, and construction phases.

Caltrans would require the contractor to develop an acceptable Storm Water Pollution Prevention Plan containing best management practices that have demonstrated effectiveness at reducing storm water pollution, and addresses all construction-related activities, equipment, and materials that have the potential to affect water quality.

2.2.3 Paleontology

Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. A number of federal statutes, such as the Antiquities Act of 1906 (16 United States Code 431-433), Federal-Aid Highway Act of 1960 (23 United States Code 305), and the Omnibus Public Land Management Act of 2009 (16 United States Code 470aaa), specifically address paleontological resources and treatment and funding for mitigation as a part of federally authorized or funded projects. Under California law, paleontological resources are protected by the California Environmental Quality Act.

Affected Environment

In January 2012, a Paleontological Evaluation Report was completed for the project incorporating the results of all previous studies conducted for the project to reflect the current design alternatives of the project.

Scientifically significant paleontological resources are identified sites or geologic deposits containing individual fossils or assemblages of fossils that add to the existing body of knowledge because they are unique or unusual or are important diagnostically or stratigraphically.

The project is on the alluvial plain of the Great Valley geomorphic province of the southeastern border of the San Joaquin Valley. Mesozoic ultramafic rocks crop out near the eastern portion of the project area on Rocky Hill. Pleistocene non-marine sedimentary deposits underlie most the project area, as well as small areas of Great Valley fan and basin deposits. Pleistocene sedimentary deposits potential to yield fossils and highly sensitive fossil locations occur in some Pleistocene sediments. Within Tulare County, these sediments have produced vertebrate fossil specimens. Most of the project area is covered by Modesto and Riverbank. Formation deposits that are known to contain fossils of scientific interest.

The closest Los Angeles County Museum of Natural History site is about 20 miles south-southeast of the project area. The University of California Museum of Paleontology (UCMP) has two sites within the project area: UCMP V3931, Exeter 1 and UCMP V6837, Exeter 2. Two other sites are nearby: UCMP V65309, Strathmore and UCMP V7824, Denton's Farm. The two vertebrate sites within the project area—UCMP 3931 and 6837—have produced Rancholabrean age fossil specimens of *Perissocactyla Equidae Equus*.

In 2002, these deposits were assigned a moderate level of sensitivity by California State University, Fresno. The area within Exeter was designated as high sensitivity (see Appendix C).

Environmental Consequences

With adoption of avoidance and minimization measures, the current build alternatives would not have substantial impacts to paleontological resources, and the project as a whole would not substantially impact paleontological resources.

Excavation of the project would require shallow (not more than 6 feet) excavation in high and moderate sensitivity Modesto and Riverbank Formations. These uppermost few feet of sediment are unlikely to yield substantial vertebrate remains.

Avoidance, Minimization, and/or Mitigation Measures

Avoidance and minimization measures include the following:

- If project construction plans change to include major deep excavation (beyond six feet), or if paleontological resources are discovered at the job site, the Caltrans paleontological coordinator would be notified immediately and the project plans would be reevaluated, if necessary, by the paleontological coordinator and a principal paleontologist. Mitigation measures that follow Caltrans Standard Environmental Reference Chapter 8 – Paleontology (Caltrans, 2011a) would be used.
- Project construction personnel would comply with Caltrans Standard Specification 14-7 Paleontological Resources.
 1. Stop all work within a 60-foot radius of the discovery
 2. Protect the area
 3. Notify the resident engineer
- Caltrans will investigate and modify the dimensions of the protected area if necessary. Paleontological resources will not be removed from the job site. Work will not resume within the specified radius of the discovery until authorized.

2.2.4 Hazardous Waste or Materials

Regulatory Setting

Hazardous materials and hazardous waste are regulated by many state and federal laws. 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 and the Comprehensive Environmental Response, Compensation and Liability Act of 1980. The purpose of the Comprehensive Environmental Response, Compensation and Liability Act, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for “cradle to grave” regulation of hazardous wastes. Other federal laws regulating hazardous materials and waste include the following:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

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.

Affected Environment

In June 2012, Caltrans Hazardous Waste specialists completed a comprehensive addendum to the Initial Site Assessment completed for the project in December 2000.

The project area consists of farmland, rural single-family residences, irrigation and domestic water wells, wind machines operated by electricity or fuel, a waste water

treatment plant, individual septic systems, railroad tracks (existing and abandoned), several fruit/citrus packing houses, and cold storage facilities.

Gas Wells

No known gas wells have been drilled in the project area (maps available through the Department of Conservation Division of Oil, Gas and Geothermal Resources). A high pressure gas line, however, runs along Spruce Avenue (Road 204).

Groundwater

Groundwater in the project area runs in a southwesterly direction. Groundwater levels in the area vary between 20 feet below ground surface to 80 feet below ground surface (California Department of Water Resources' maps). The project area is in a pesticide management zone (Department of Pesticide Regulation and State Water Resources Control Board sources). A pesticide management zone is a geographic surveying unit of about one square mile designated in the regulations as sensitive to groundwater pollution. The Pesticide Contamination Prevention Act of 1986 requires the director of the Department of Pesticide Regulation maintain a statewide database of wells sampled for active ingredients found in pesticide products.

In Tulare County, pesticide residues in groundwater are the result of non-point source, legal agricultural use. Detection of atrazine, bromacil, diuron, premeton, and simazine in sampled wells is common (Sampling for Pesticide Residues in California Well Water, 1994; Update Well Inventory Data Base, Department of Pesticide Regulation, C. Miller, K. Newhart, M. Pepple, J. Troiano, D. Weaver, and State Water Resources Control Board staff).

Naturally Occurring Asbestos

According to the Department of Conservation U.S. Geological survey map for the area, naturally occurring asbestos is found to the east of the Friant-Kern Canal.

The abandoned and existing railroad tracks belonging to the San Joaquin Valley and Southern Pacific Railroads may have elements of heavy metals and petroleum hydrocarbons.

Underground Storage Tanks

Underground storage tanks that store 1,100 gallons or less of motor vehicle fuel and are used primarily for agricultural purposes are exempt from the underground storage tank regulations (California Code of Regulations Title 23, Division 3, Chapter 16 Section

2621 [a][1]). There may be agricultural underground storage tanks that have not been registered and do not show up on any databases.

Environmental Consequences

Gas Wells

Alternative 1 would require the relocation of the high pressure gas line in some areas. Alternative 2 would have no effect on the high pressure gas line.

Groundwater

With adoption of best management practices, Alternative 1 and Alternative 2 would not affect groundwater (see Section 2.2.1, Water and Storm Water Runoff). The detection of chemicals in the groundwater would not pose a risk to the project if groundwater is encountered during construction.

Naturally Occurring Asbestos

Alternative 1 and Alternative 2 are on the west side of the Friant-Kern Canal; therefore, the area of naturally occurring asbestos would be avoided.

Both build alternatives potentially relocate older structures and abandoned railroad tracks. Older structures may contain lead-based paint and asbestos containing materials and the soils along the railroad tracks may contain aurally deposited lead.

Underground Storage Tanks (USTs)

Alternative 1 and Alternative 2 have potential to encounter agricultural underground storage tanks that have not been registered on any databases searched for the Initial Site Assessment.

Additional Studies Recommended

An aurally deposited lead survey is recommended after the preferred alternative is identified for all segments prior to the Project Approval and Environmental Document date for the project. The estimated cost for the aurally deposited lead (ADL) investigation is \$40,000.

A Preliminary Site Investigation is recommended for several property parcels within Phases 1 and 2 of the project. No properties within Phase 3 and 4 were identified for further investigation. The Preliminary Site Investigation would include only the properties within the proposed right-of-way of the preferred alternative. It is recommended the investigations be done during each appropriate phase prior to construction. The estimated cost for each investigation is \$8,000.

If Alternative 1 is identified as the preferred alternative, further investigation is needed for following properties:

- Assessor's Parcel Number (APN) 199-080-002 KWC Citrus (concrete fuel tank)
- Assessor's Parcel Number (APN) 037-070-035 San Joaquin Valley Railroad
- Assessor's Parcel Number (APN) 199-210-720 Lindsay Food Mart (underground storage tanks)
- Assessor's Parcel Number (APN) 199-210-065, Lindsay Irrigation Supply (stained soil, heavy equipment repair)
- Assessor's Parcel Number (APN) 199-310-015, Chevron /mini mart (underground storage tank)
- Assessor's Parcel Number (APN) 199-200-030 Quick Mart (fuel facility)

If Alternative 2 is identified as the preferred alternative, further investigation is needed for the following properties:

- Assessor's Parcel Number (APN) 199-080-002 KWC Citrus (concrete fuel tank)
- Assessor's Parcel Number (APN) 037-070-035 San Joaquin Valley Railroad

A bridge survey is no longer necessary. The Friant-Kern Canal would not be affected.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard Specifications and Non-Standard Specifications pertaining to hazardous waste would be provided during the Project Specifications and Estimates phase prior to construction.

2.2.5 Air Quality

Regulatory Setting

The Federal Clean Air Act, as amended in 1990, is the federal law that governs air quality. The California Clean Air Act of 1988 is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency and the California Air Resources Board, 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. National Ambient Air Quality Standards and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM) (particulate matter is broken down for regulatory purposes into particles of 10 micrometers in diameter or smaller—PM₁₀—and particles of 2.5 micrometers and smaller—PM_{2.5}), lead (Pb), and sulfur dioxide (SO₂). In addition,

state standards exist for visibility reducing particles, sulfates, hydrogen sulfide (H₂S), and vinyl chloride.

The National Ambient Air Quality Standards and state standards are set at a level that protects public health with a margin of safety and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics within their general definition.

Federal and state air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act and the California Environmental Quality Act. In this type of environmental analysis, a parallel “Conformity” requirement under the Federal Clean Air Act also applies.

Federal Clean Air Act Section 176(c) prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs or projects that are not first found to conform to State Implementation Plan for achieving the goals of Clean Air Act requirements related to the National Ambient Air Quality Standards. “Transportation Conformity” takes place on two levels: the regional, or planning and programming, level, and the project level. The proposed project must conform at both levels to be approved. Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for the National Ambient Air Quality Standards, and only for the specific National Ambient Air Quality Standards that are or were violated. U.S. Environmental Protection Agency regulations at 40 Code of Federal Regulations 93 govern the conformity process.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the standards set for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and in some areas sulfur dioxide (SO₂). California has attainment or maintenance areas for all of these transportation-related “criteria pollutants” except SO₂, and also has a nonattainment area for lead (Pb). However, lead is not currently required by the Federal Clean Air Act to be covered in transportation conformity analysis. Regional conformity is based on Regional Transportation Plans and Federal Transportation Improvement Programs that include all of the transportation projects planned for a region over a period of at least 20 years (for the Regional Transportation Plan), and 4 years (for the Federal Transportation Improvement Plan).

Regional Transportation Plan and Federal Transportation Improvement Plan conformity is based on use of travel demand and air quality models to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that requirements of the Clean Air Act and the State Implementation Plan are met. If the conformity analysis is successful, the Metropolitan Planning Organization and the Federal Highway Administration and Federal Transit Administration, make the determinations that the Regional Transportation Plan and Federal Transportation Improvement Plan are in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the Regional Transportation Plan and/or Federal Transportation Improvement Plan must be modified until conformity is attained. If the design concept, scope, and “open-to-traffic” schedule of a proposed transportation project are the same as described in the Regional Transportation Plan and the Federal Transportation Improvement Plan, 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 (PM₁₀ or PM_{2.5}). A region is “nonattainment” if one or more of the monitoring stations in the region measures violation of the relevant standard, and U.S. Environmental Protection Agency officially designates the area nonattainment. Areas that were previously designated as nonattainment areas but subsequently meet the standard may be officially redesignated to attainment by U.S. Environmental Protection Agency, and are then called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as carbon monoxide (CO) or particulate matter analysis performed for National Environmental Policy Act purposes. Conformity does include some specific procedural and documentation standards for projects that require a “hot spot” analysis. In general, projects must not cause the “hot spot”-related standard to be violated, and must not cause any increase in the number and severity of violations in nonattainment areas. If a known carbon monoxide 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.

Affected Environment

An Air Quality Report was completed for the project in August 2012. The purpose of the report was to document the anticipated air quality effects of the proposed project and addressed both state and federal air quality standards with the intent to satisfy the requirements of the California Environmental Quality Act and the National Environmental Policy Act.

The proposed project is between the cities of Lindsay and Exeter in Tulare County within the San Joaquin Valley Air Basin. The San Joaquin Valley, almost 300 miles long, is bounded by the Tehachapi Mountains in the south to the San Joaquin-Sacramento River Delta in the north. The Sierra Nevada Mountain Range forms the eastern boundary and the lower coastal ranges in the west. Total land area is 23,720 square miles. The Valley is characterized by hot, dry summers and cool winters. Precipitation is directly related to latitude and elevation, with the southern portion accumulating an average of less than 6 inches of rain per year. The rainy season is typically between November and April, with Tulare County's average annual rainfall ranging from 8 inches in the south to 18 inches in the north. Snow is rare on the Valley floor, though the Sierra Nevada Mountains generally has heavy accumulations during the winter. Warm temperatures, prevailing winds and the location of the county within an enclosed valley all play a role in the air quality of the area.

The closest air monitor, the Visalia North Church Street air quality monitor, 310 North Church Street, Visalia, is about 10 miles from the project site. The monitor records data for PM₁₀, PM_{2.5} and ozone. Tulare County is in a federal and state non-attainment area for particulate matter (PM_{2.5}) and ozone. The county is in an federal attainment-maintenance—but in a state non-attainment area—for PM₁₀. Table 2.12 provides the air quality standards and state and federal status for the San Joaquin Valley Air District.

Table 2.12 Air Quality Standards and Status

Pollutant	Averaging Time	State ⁹ Standard	Federal ⁹ Standard	Principal Health and Atmospheric Effects	Typical Sources	Attainment Status
Ozone (O ₃) ²	1 hour	0.09 ppm	--- ⁴	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic VOC may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds (ROG or VOC) and nitrogen oxides (NOx) in the presence of sunlight and heat. Major sources include motor vehicles and other mobile sources, solvent evaporation, and industrial and other combustion processes.	Federal: Non - Attainment
	8 hours	0.070 ppm	0.075 ppm ⁶			State: Non-attainment
		---	0.08 ppm			
	8 hours (conformity process ⁵)					
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.	Federal: Attainment
	8 hours	9.0 ppm ¹	9 ppm			State: Attainment
Respirable Particulate Matter (PM ₁₀) ²	24 hours	50 µg/m³	150 µg/m³	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many aerosol and solid compounds are part of PM ₁₀ .	Dust- and fume-producing industrial and agricultural operations; combustion smoke; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources (wind-blown dust, ocean spray).	Federal: Attainment-Maintenance
	Annual	20 µg/m³	--- ²			State: Non-attainment
Fine Particulate Matter (PM _{2.5}) ²	24 hours	---	35 µg/m³	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a toxic air contaminant – is in the PM _{2.5} size range. Many aerosol and solid compounds are part of PM _{2.5} .	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical (including photochemical) reactions involving other pollutants including NOx, sulfur oxides (SOx), ammonia, and ROG.	Federal: Non - attainment
	Annual	12 µg/m³	15.0 µg/m³			
	24 hours (conformity process ⁵)	---	65 µg/m³			State: Non-attainment

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

Pollutant	Averaging Time	State ⁹ Standard	Federal ⁹ Standard	Principal Health and Atmospheric Effects	Typical Sources	Attainment Status
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm	0.100 ppm ⁷	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain. Part of the “NOx” group of ozone precursors.	Motor vehicles and other mobile sources; refineries; industrial operations.	Federal: Attainment
			(98 th percentile over 3 years)			
			0.053 ppm			State: Attainment
	Annual	0.030 ppm				
Sulfur Dioxide (SO ₂)	1 hour	0.25 ppm	0.075 ppm ⁸	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.	Federal: Attainment
			(98 th percentile over 3 years)			
			0.5 ppm			State: Attainment
	3 hours		0.14 ppm			
	24 hours	---	0.030 ppm			
	Annual	0.04 ppm				
Lead ^{10, 11}	Monthly	1.5 µg/m ³	---	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from gasoline may exist in soils along major roads.	Federal: Attainment
	Quarterly	---	1.5 µg/m ³			
	Rolling 3-month average	---	0.15 µg/m ³			State: Attainment
Sulfates	24 hours	25 µg/m ³	---	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.	State Only:
						Attainment (entire state)
Hydrogen Sulfide (H ₂ S)	1 hour	0.03 ppm	---	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.	State Only: Attainment

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

Pollutant	Averaging Time	State ⁹ Standard	Federal ⁹ Standard	Principal Health and Atmospheric Effects	Typical Sources	Attainment Status
Visibility Reducing Particles (VRP)	8 hours	Visibility of 10 miles or more	---	Reduces visibility. Produces haze. NOTE: not related to the Regional Haze program under the Federal Clean Air Act, which is oriented primarily toward visibility issues in National Parks and other "Class I" areas.	See particulate matter above.	State Only: Attainment
Vinyl Chloride ³	24 hours	0.01 ppm	---	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes	State Only:
						Unclassified (entire state)

Sources: California Air Resources Board 2-7-12 Attainment Status: Source: Environmental Protection Agency (EPA) "Green Book" and California Air Resources Board web site: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

Notes: ppm = parts per million; µg/m³ = micrograms per cubic meter; ppb=parts per billion (thousand million)

- 1 Rounding to an integer value is not allowed for the State 8-hour CO standard. Violation occurs at or above 9.05 ppm. Violation of the Federal standard occurs at 9.5 ppm due to integer rounding.
- 2 Annual PM₁₀ National Ambient Air Quality Standard (NAAQS) revoked October 2006; was 50 µg/m³. 24-hr. PM_{2.5} NAAQS tightened October 2006; was 65 µg/m³. In 9/09 the U.S. Environmental Protection Agency (U.S. EPA) began reconsidering the PM_{2.5} NAAQS; the 2006 action was partially vacated by a court decision.
- 3 The Air Resources Board has identified vinyl chloride and the particulate matter fraction of diesel exhaust as toxic air contaminants. Diesel exhaust particulate matter is part of PM₁₀ and, in larger proportion, PM_{2.5}. Both the Air Resources Board and U.S. EPA have identified lead and various organic compounds that are precursors to ozone and PM_{2.5} as toxic air contaminants. There are no exposure criteria for adverse health effect due to toxic air contaminants, and control requirements may apply at ambient concentrations below any criteria levels specified above for these pollutants or the general categories of pollutants to which they belong. Lead NAAQS are not required to be considered in Transportation Conformity analysis.
- 4 Prior to 6/2005, the 1-hour NAAQS was 0.12 ppm. The 1-hour NAAQS is still used only in 8-hour ozone early action compact areas, of which there are none in California. However, emission budgets for 1-hour ozone may still be in use in some areas where 8-hour ozone emission budgets have not been developed.
- 5 The 65 µg/m³ PM_{2.5} (24-hr) NAAQS was not revoked when the 35 µg/m³ NAAQS was promulgated in 2006. Conformity requirements apply for all NAAQS, including revoked NAAQS, until emission budgets for the newer NAAQS are found adequate or State Implementation Plan amendments for the newer NAAQS are completed.
- 6 As of 9/16/09, U.S. EPA is reconsidering the 2008 8-hour ozone NAAQS (0.075 ppm); U.S. EPA is expected to tighten the primary NAAQS to somewhere in the range of 60-70 ppb and to add a secondary NAAQS. U.S. EPA plans to finalize reconsideration and promulgate a revised standard by August 2010.
- 7 Final 1-hour NO₂ NAAQS published in the Federal Register on 2/9/2010, effective 3/9/2010. Initial nonattainment area designations should occur in 2012 with conformity requirements effective in 2013. Project-level hot spot analysis requirements, while not yet required for conformity purposes, are expected.
- 8 U.S. EPA finalized a 1-hour SO₂ standard of 75 ppb in June 2010.
- 9 State standards are "not to exceed" unless stated otherwise. Federal standards are "not to exceed more than once a year" or as noted above.

Environmental Consequences

Regional Air Quality Conformity

In preparing their respective long-term transportation plans, Tulare County assumes that current funding levels will remain constant over the next 20 years. According to the Tulare 2011 Regional Transportation Plan, the county population is projected to increase from 441,000 in 2010 to 620,000 in 2030. Like most of the Central Valley, recent residential growth in Tulare County has been attributed to people moving here for its affordable owner-occupied housing within reasonable commuting range of large metropolitan areas. However, the current economic downturn may have an effect on these projections.

It is expected that employment opportunities within the San Joaquin Valley will change over the time span of this plan. Agricultural employment is expected to drop as a percentage of total employment as agricultural activities become more automated. As agricultural labor needs drop, the demand for employees in services, wholesale trade, and retail trade are expected to increase in importance in the future employment pattern of the San Joaquin Valley.

In contrast to other areas of California, air quality in the San Joaquin Valley Air Basin is not dominated by emissions from a central urban area. There is a widely distributed network of moderately large urban areas which center on the major roadways throughout the region. Roughly 10 percent of California's population lives in the San Joaquin Valley and pollution sources contribute 13 percent of the total statewide criteria pollutant emissions.

The emission levels in the San Joaquin Valley Air Basin have been decreasing since 1990 with the exception of PM₁₀, which has remained relatively unchanged. PM₁₀ emissions are mostly fugitive dust from paved and unpaved roads, agricultural operations, and waste burning. Decreases are predominantly due to motor vehicle controls and reductions in evaporative and fugitive emissions. The largest contributors to carbon monoxide (CO) emissions in the San Joaquin Valley are on-road motor vehicles. On-road motor vehicles, other mobile sources, and stationary sources are all significant contributors to oxides of nitrogen (NO_x) emissions. A majority of stationary source reactive organic gases (ROG) emissions is attributed to fugitive emissions from extensive oil and gas production operations in the lower San Joaquin Valley.

The emission levels for oxides of sulfur (SO_x) have decreased since 1975. This is mainly due to the switch from fuel oil to natural gas for electric generation and to reduced fuel

sulfur content. The oxides of sulfur emissions increased slightly after 2010. This increase is mainly seen in the industrial fuel combustion categories.

The design concept and scope of the proposed Tulare Expressway project are consistent with the project description in the 2007 Regional Transportation Plan, 2007 Federal Transportation Improvement Program, and the assumptions in the regional emissions analyses of Tulare County. The project does not interfere with the timely implementation of Traffic Control Measures.

The proposed project is fully funded and is listed in the 2011 Tulare County Association of Government's Regional Transportation Plan and was found to conform by the Tulare County Association of Government's Policy Board on July 19, 2010. The Federal Highway Administration and Federal Transit Administration adopted the air quality conformity finding on December 16, 2011. The project is also included in the Tulare County Council of Government's financially constrained 2013 Tulare County Federal Interim Transportation Improvement Program, State Transportation Improvement Program/Regional Choice table (page 27 of 31). The Tulare County Association of Government's 2013 Federal Transportation Improvement Program is expected to be found to conform by the Federal Highway Administration and the Federal Transit Administration in December 2012. The design concept and scope of the proposed project is consistent with the project description in the 2011 Regional Transportation Plan, the 2013 Regional Transportation Improvement Program, and the assumptions in the regional emissions analysis.

Project-Level Conformity

A project in a non-attainment or maintenance area for a given pollutant requires additional air quality analysis and reduction measures in regard to the pollutant. Table 2.10 summarized the federal and state attainment status of the project. The "hot-spot" analysis is most frequently done for carbon monoxide and particulate matter. Currently, there is no hot-spot procedure for ozone, a regional pollutant.

Particulate Matter Analysis

The project is in a federal PM_{2.5} non-attainment area and a federal attainment-maintenance PM₁₀ area and requires a full qualitative PM_{2.5} and PM₁₀ hot-spot analysis under 40 Code of Federal Regulations 93.123(b)(1)(i).

A qualitative hot spot analysis was submitted to the Model Coordinating Committee in December 2009. Concurrence that this was "Not a Project of Air Quality Concern" was

received from the Federal Highway Administration and the U.S. Environmental Protection Agency in January 2010 (See Appendix I). As such, it is expected that this project would not cause an increase in particulate matter violations over the state or federal standard.

The Visalia North Church Street air quality monitor is the nearest monitor measuring PM₁₀ and PM_{2.5}. However, because the monitor is about 10 miles north of the project site boundary and about 0.3 mile north of State Route 198, it was considered too far away to be useful in the hot-spot analysis.

Because project construction will be phased, a new qualitative hot-spot analysis is required and will be submitted for Interagency Consultation. The project is still considered to be “Not a Project of Air Quality Concern” primarily because the average annual daily traffic predicted for 2035 is less than the 125,000 vehicles. Predicted truck traffic will be less than 10,000. The hot-spot analysis will be submitted for concurrence in September 2012.

Table 2.13 Current and Future Traffic Volumes

Volume	Existing Year 2007	2015 Build (Afternoon)	2015 No Build (Afternoon)	2035 Build	2035 No Build
Annual Average Daily Traffic All Vehicles	17,500	23,300	23,300	25,500	25,500
Annual Average Daily Traffic Diesel Trucks (14 percent)	1,400	1,680	1,680	2,040	2,040
Level of Service	F	B-C	C-F	B-C	E-F

Source: Caltrans Updated Traffic Operational Analysis, 2009

The Air Resources Board 2009 Almanac states, “The overall particulate matter air quality trends have included some improvements over time. The amount of direct emissions of PM₁₀ and PM_{2.5} has remained relatively unchanged from 1975 to the present. The sources are forecasted to stay relatively unchanged through 2020. Particulate matter can come from area-wide sources such as fugitive dust from paved and unpaved roads, waste burning, agricultural operations and residential fuel burning.” Due to a combination of factors, including many increased regulations by the San Joaquin Valley Air Pollution

Control District, less polluting vehicles and fuels and road improvements that include paved shoulders, the San Joaquin Valley is now going from a nonattainment area to an attainment-maintenance area.

Ozone Analysis

Ozone is considered a regional pollutant. It is not usually emitted directly into the air but at ground level is created by a chemical reaction between oxides of nitrogen (NO_x) and volatile organic compounds in the presence of sunlight. The local transportation planning organizations identify all reasonably available transportation control measures in their transportation plans and program in accordance with the 1990 Federal Clean Air Act. Although Tulare County is non-attainment for both state and federal ozone standards, there is currently no approved method available for estimating ozone effects at the project level.

Because there are no approved guidelines for ozone, a project is considered as conforming to the State Implementation Plan for ozone when the project is listed in an approved Regional Transportation Plan and associated conformity analysis. The proposed project is listed in Tulare County's 2011 Regional Transportation Plan.

Carbon Monoxide Analysis

The project is in a state attainment area and a federal attainment/maintenance area. Due to the attainment status, a federal project level conformity analysis is not required. The 1997 University of California at Davis Transportation Project-Level Carbon Monoxide Protocol was followed as the preferred guideline in California to qualitatively evaluate potential effects, if any. Caltrans determined that the project was conforming and is not expected to result in any adverse air quality impacts. Table 2.13 shows the Project-Level Carbon Monoxide Protocol questions used to make that determination.

Table 2.14 Summary of Project-Level Carbon Monoxide Analysis

Protocol Question	Answer
Does the project significantly increase the percentage of vehicles operating in cold start mode?	No
Does the project improve traffic flow?	Yes
Does the project move traffic closer to receptors?	No
Is the project suspected of resulting in higher CO concentrations than those existing within the region at the time attainment demonstration?	No
Does the project involve a signalized intersection at level of service E or F?	Yes
Does the project involve a signalized intersection worsening its level of service to E or F?	No
Are there any other reasons to believe the project may have adverse air quality impacts?	No

Mobile Source Air Toxics Analysis

Federal Highway Administration has developed a tier approach for analyzing mobile source air toxics for highway projects; the tiers are summarized as follows:

- Level 1 projects are exempt projects with no potential for meaningful mobile air source toxic effects and require no analysis.
- Level 2 projects have low potential for mobile source air toxic effects, and require only a qualitative analysis.
- Level 3 projects are those projects that have a higher potential for mobile sources air toxic and require quantitative analysis to differentiate alternatives.

Caltrans determine the proposed project best fits the Level 1 category because the project would have no meaningful effect on traffic volumes or vehicle mix (types of vehicle using the highway).

Mobile source air toxics are a subset of the 188 air toxics defined by the Clean Air Act. The mobile source air toxics are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

For each build alternative the amount of mobile source air toxics emitted would be proportional to the vehicle miles traveled assuming that other variables such as fleet mix are the same for each build alternative. The vehicle miles traveled estimated for each of the build alternatives is the same as for the No-Build Alternative. The vehicles miles traveled is obtained by multiplying the annual average daily traffic by the project length

in miles. According to the Air Resources Board's EMFAC 2007 emissions model, emissions of all of the priority mobile source air toxics decrease as speed increases up to about 50 miles per hour. There is no federal mobile source air toxics threshold limit for transportation projects.

The proposed project has low potential mobile source air toxics effects. The Environmental Protection Agency projections indicate a continuing downward trend of the six primary mobile source air toxics. The study of mobile source air toxics, dose-response effects, and modeling tools are currently in a state where accurate information is incomplete or unavailable. This is relevant to making an accurate prediction of any reasonably foreseeable adverse effects on the human environment. There is currently no specific significance level for receptor exposure. Without a significance level for exposure, one cannot accurately and scientifically predict the effects on the human environment. Studies are currently being conducted to clarify some of these unknowns; that information, however, is not currently available.

Avoidance, Minimization, and/or Mitigation Measures

The paved shoulders in the proposed project should minimize particulate matter (PM₁₀ emissions) and road dust.

This project would be subject to the San Joaquin Valley Air Pollution Control District Rule 9510 (Indirect Source Review Rule) that applies to construction equipment emissions for transportation projects that exceed 2 tons of either PM₁₀ and/or NO_x air pollutants. Mitigation options include using a construction fleet that is "cleaner than the California state average" and/or in the form of fees paid to the San Joaquin Valley Air Pollution Control District. The contractor will be responsible for the Indirect Source Review Air Impact Analysis and any applicable fees.

Caltrans Standard Specifications pertaining to dust control and dust palliative requirement is a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1.01F "Air Pollution Control" and Section 10 "Dust Control" require the contractor to comply with the San Joaquin Valley Air Pollution Control District rules, ordinances, and regulations.

Climate Change

Climate change is analyzed in Chapter 3. Neither the United States Environmental Protection Agency nor Federal Highway Administration has promulgated explicit

guidance or methodology to conduct project-level greenhouse gas analysis. As stated on Federal Highway Administration's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will facilitate decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

Because there have been more requirements set forth in California legislation and executive orders regarding climate change, the issue is addressed in the California Environmental Quality Act chapter of this environmental document and may be used to inform the National Environmental Policy Act decision. The four strategies set forth by Federal Highway Administration to lessen climate change impacts do correlate with efforts that the State has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and reduction in the growth of vehicle hours travelled.

2.2.6 Noise

Regulatory Setting

The National Environmental Policy Act and the California Environmental Quality Act provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between National Environmental Policy Act and California Environmental Quality Act.

California Environmental Quality Act

The California Environmental Quality Act requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under California Environmental Quality Act, then California Environmental Quality Act dictates that mitigation measures must be incorporated into the project unless such measures are not feasible. The rest of this section will focus on the National Environmental Policy Act -23 CFR 772 noise

analysis; please see Chapter 3 of this document for further information on noise analysis under California Environmental Quality Act.

National Environmental Policy Act and 23 Code of Federal Regulations 772

For highway transportation projects with the Federal Highway Administration and Caltrans, as assigned, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the noise abatement criteria for residences (67 decibels) is lower than the noise abatement criteria for commercial areas (72 decibels). Table 2.15 lists the noise abatement criteria for use in the National Environmental Policy Act and 23 CFR 772 analysis. Also see Figure 2-4 for common noise levels.

Table 2.15 Activity Categories and Noise Abatement Criteria

Noise Abatement Criteria		
Activity Category	Noise Abatement Criteria, Hourly A- Weighted Noise Level, decibel $L_{eq}(h)$	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above.
D	–	Undeveloped lands.
E	52 Interior	Residence, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
<u>Jet Fly-over at 300m (1000 ft)</u>	110	<u>Rock Band</u>
<u>Gas Lawn Mower at 1 m (3 ft)</u>	100	
<u>Diesel Truck at 15 m (50 ft), at 80 km (50 mph)</u>	90	<u>Food Blender at 1 m (3 ft)</u>
<u>Noisy Urban Area, Daytime</u>	80	<u>Garbage Disposal at 1 m (3 ft)</u>
<u>Gas Lawn Mower, 30 m (100 ft) Commercial Area</u>	70	<u>Vacuum Cleaner at 3 m (10 ft)</u> <u>Normal Speech at 1 m (3 ft)</u>
<u>Heavy Traffic at 90 m (300 ft)</u>	60	<u>Large Business Office</u>
<u>Quiet Urban Daytime</u>	50	<u>Dishwasher Next Room</u>
<u>Quiet Urban Nighttime</u> <u>Quiet Suburban Nighttime</u>	40	<u>Theater, Large Conference Room (Background)</u>
<u>Quiet Rural Nighttime</u>	30	<u>Library</u> <u>Bedroom at Night,</u> <u>Concert Hall (Background)</u>
	20	<u>Broadcast/Recording Studio</u>
	10	
<u>Lowest Threshold of Human Hearing</u>	0	<u>Lowest Threshold of Human Hearing</u>

Figure 2-4 Typical Noise Levels

In accordance with the Caltrans Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (August 2006), a noise impact occurs when future noise levels with the project result is a substantial increase (defined as a 12 decibel or greater increase) or when future noise levels with the project approach or exceed the noise abatement criteria. Approaching the noise abatement criteria is defined as coming within 1 decibel of the noise abatement criteria.

If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

The Caltrans Traffic Noise Analysis Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible.

Feasibility of noise abatement is basically an engineering concern. A minimum 5-decibel reduction (for projects using the 2006 Noise Protocol) or 7-decibel reduction (for projects using the 2011 Noise Protocol and is part of the reasonableness analysis) in future noise levels must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents acceptance and the cost per benefited residence.

Affected Environment

A Noise Study Report was completed for the project in August 2012. The noise analysis incorporated and modified the results obtained from a 2004 noise study conducted for the project through modeling receptor locations within the project limits and focused on locations with defined outdoor activity areas such as residential backyards and common use areas at single-family residences. Only the closest properties to State Route 65 were analyzed for future traffic noise impacts. In reference to Table 2.14 in this document, single-family residences are considered as activity category B land use (67 decibels), whereas the agricultural fields that comprise the bulk of the project area are considered activity category D land use.

Figures 2-5 and 2-6 display a map of the receptors used for the 2012 analysis. Readings near the community of Tooleville are represented by Receptors R-1 and

R-2. Readings for rural areas within the project limits are represented by Receptors R-3 and R-4. Readings near the area on Spruce Avenue (Road 204) at Avenue 256, formally known as Orangehurst or Orangehurst Colony, were averaged and are represented by Receptor R-7.

Receptors R-1, R-2, and R-7 are currently experiencing existing noise levels on Spruce Avenue (Road 204) from commuting traffic. However, Receptors R-3 and R-4 are within the project corridor, which is largely rural and agricultural with scattered residences set back at distances ranging between 3,500 and 5 000 feet from existing State Route 65. Because the traffic noise model has a distance limitation for predicting noise levels for receptors at distances greater than 500 feet from the roadway, the noise analysis assigned the measured background noise level of 46 decibels to Receptors R-3 and R-4 as a documented background field measurement.



Figure 2-5 Receptor Map of R- 3 and R-7



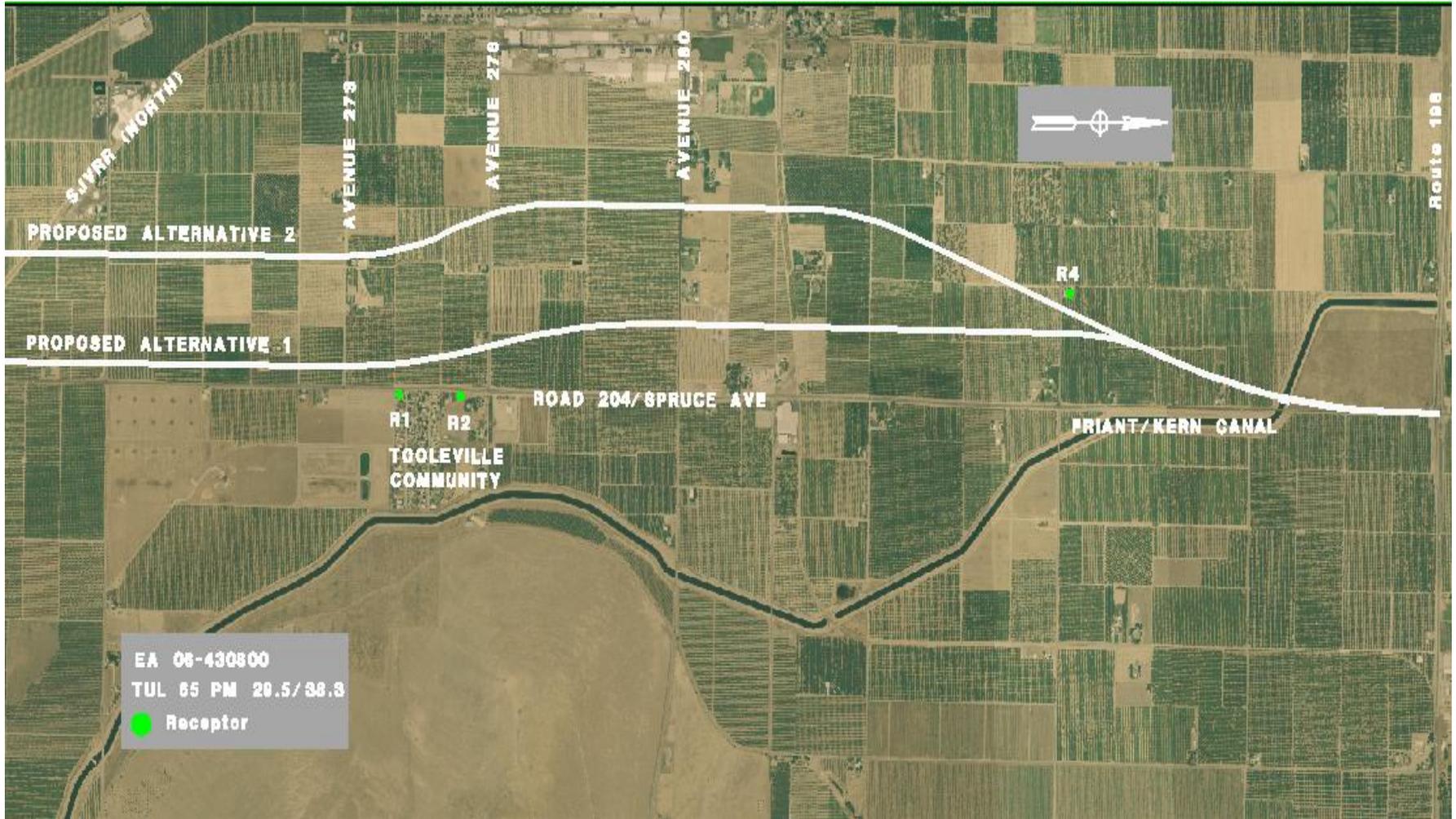


Figure 2-6 Receptor Map of R-1, R-2, and R-4

Environmental Consequences

No sound abatement is necessary for the project. Table 2.16 summarizes the predicted future noise and barrier (noise abatement) results for the proposed project.

Table 2.16 Summary of Short-Term Noise Measurements

Receptor Number and Location	2007 Existing Noise Level (decibels)	2035 Predicted Noise Level without Project (decibels)	2035 Predicted Noise Level with Project (decibels)		Noise Impact Requiring Abatement Consideration
			Alternative		
			1	2	
R-1 (Tooleville) 1004 Spruce Avenue (Road 204), Exeter	73	75	61	46	No
R-2 (Tooleville) 834 S. Spruce Avenue (Road 204), Exeter	71	73	57	46	No
R-3 (isolated residence) 2015 S. Avenue 256 (Road 204, Exeter	46*	46*	46*	54	No
R-4 (isolated residence) 1640 E. Marinette Avenue (Road 204), Exeter	46*	46*	55	56	No
R-7 (near Avenue 256) 25698 Spruce Avenue (Road 204), Exeter	73	75	64	46*	No
*Field-measured background noise level					

Source: 2012 Noise Study Report

Table 2.17 shows the predicted future noise levels for the year 2035, with and without the project. The results of the analysis showed that both build alternatives affected the receptors similarly in that neither alternative's predicted noise levels would approach or exceed the acceptable level for outdoor residential noise abatement of 67 decibels.

Construction

Noise from construction activities may off and on dominate the noise environment in the immediate area. However, adverse noise impacts from construction are not anticipated because construction would be done in accordance with Caltrans Standard Specifications Section 14.8.02 and applicable local noise standards. Construction noise would be short term, intermittent, and overshadowed by local traffic noise. Construction is anticipated to last about 550 working days (2.5 years). Night construction is not expected except in rare circumstances.

Avoidance, Minimization, and/or Abatement Measures

Using the following measures would minimize the temporary noise impacts from construction:

- All equipment will have sound-control devices as effective as those provided on the original equipment. No equipment would have an unmuffled exhaust.
- As directed by Caltrans, the contractor would use appropriate additional noise mitigation measures such as changing the location of or placing acoustic barriers (soundwalls) around stationary construction equipment, turning off idling equipment, or rescheduling construction activities.
- The Caltrans District 6 Public Information Office must provide the following information about project construction in a notice to local news media at least two weeks in advance: approximate construction schedule, hours of construction, and anticipated impacts to local residents from construction noise, dust, and glare.
- If complaints are received from residents near the highway, temporary plywood barriers (Type-60 Barrier) can be constructed.

2.3 Biological Environment

Caltrans qualified biologists completed a Natural Environment Study for the project in July 2012. The Natural Environment Study provides technical information and reviews the proposed project in sufficient detail to determine if the proposed project would affect threatened, endangered, or proposed species as well as other natural resources. The Natural Environment Study has been prepared in accordance with Caltrans regulations, policies, and guidance. The document presents technical information on which later decisions regarding project impacts are developed.

The majority of the biological study area is characterized as agricultural, with the primary crops consisting of orange and stone fruit orchards. Other agricultural crops include irrigated row crops, olive orchards, and vineyards. The remaining areas are highly disturbed and consist of commercial, industrial and residential development, rural residences, abandoned San Joaquin Valley Railroad right-of-way, the Friant-Kern Canal, and Caltrans right-of-way.

The biological study area for this project includes the actual footprint of the project activities, the Caltrans right-of-way, and a 300-foot buffer for San Joaquin kit fox habitat. The majority of the biological study area consists of intensively cultivated agricultural

lands. All habitats have been significantly altered by human activities and generally support non-native plant species with a low diversity of native wildlife.

2.3.1 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act [CWA (33 U.S.C. 1344)] is the primary law regulating wetlands and surface waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

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

U.S. Army Corps of Engineers issues two types of 404 permits: Standard and General permits. Nationwide permits, a type of General permit, are issued to authorize a variety of minor project activities with no more than minimal effects. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of U.S. Army Corps of Engineers' Standard permits. For Standard permits, the U.S. Army Corps of Engineers decision to approve is based on compliance with U.S. Environmental Protection Agency's Section 404(b)(1) Guidelines (U.S. Environmental Protection Agency 40 Code of Federal Regulations Part 230), and whether permit approval is in the public interest. The 404 (b)(1) Guidelines were developed by the U.S. Environmental Protection Agency in conjunction with U.S. Army Corps of Engineers, and allow the discharge of dredged or fill material into the aquatic system (Waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that U.S. Army Corps of Engineers may not issue a permit if there is a least

environmentally damaging practicable alternative to the proposed discharge that would have lesser effects on Waters of the U.S., and not have any other significant adverse environmental consequences.

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

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game, the State Water Resources Control Board, and the Regional Water Quality Control Boards. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600–1607 of the California Department of 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 California Department of Fish and Game before beginning construction. If California Department of Fish and Game determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. The California Department of Fish and Game jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the California Department of Fish and Game.

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

Affected Environment

The biological study area for the project was investigated to determine the presence of U.S. Army Corps of Engineers jurisdictional Waters of the U.S. and wetlands. The term

“jurisdictional wetlands” refers to areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, under normal circumstances, vegetation typically adapted for life in saturated soil conditions. Jurisdictional wetlands generally include swamps, marshes, bogs, natural drainage channels and seasonal wetlands.

Jurisdictional Waters of the United States are defined as those waters currently used or were used in the past or may be susceptible to use in interstate commerce such as waters subject to the ebb and flow of the tide and interstate wetlands. This definition also includes interstate lakes, rivers, streams, including all intermittent and ephemeral (seasonal) streams, mudflats, sand flats, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds where the use, degradation, or destruction of which could affect interstate or foreign commerce.

Two potentially jurisdictional waterways were defined—using the U.S. Army Corps of Engineers *A Field Guide to the Ordinary High Water Mark in the Arid West Region of the Western United State*—within the biological study area: the Friant-Kern Canal and Lewis Creek. A preliminary jurisdictional delineation will be submitted to the U.S. Army Corps of Engineers for verification.

The Friant-Kern Canal is a perennial waterway that flows southeast through the project area. South of the Spruce Avenue (Road 204) and State Route 198 intersection, Spruce Avenue (Road 204) crosses the canal on a small bridge.

Water is diverted to the southern part of the San Joaquin Valley through the Friant-Kern Canal. The canal flows along the eastern edge of the valley and is siphoned under the Kaweah River, Kings River, River, and larger streams. These rivers receive water from rainfall and snow runoff from the Sierra Nevada mountain range. Water is diverted from the canal to the irrigation districts that then distribute the water to farms in the central part of Tulare County.

Lewis Creek is an intermittent stream that flows west through the project area and is the primary watercourse contributing to flooding in the city of Lindsay. The creek flows northwesterly out of the foothills of the Sierra Nevada Mountain Range, crosses the Friant-Kern Canal via a siphon about one mile east of Lindsay before passing through the northeastern corner of the city. Spruce Avenue (Road 204) crosses Lewis Creek about 5.5 miles south of State Route 198. The creek flows under Spruce Avenue (Road 204) via two culverts. The creek appears to be used for the delivery of irrigation water to nearby orchards and fields.

No wetlands were observed within the biological study area. Biotic habitats once native to the area have been eliminated by land leveling, disking, spraying, and other activities associated with agriculture and/or the construction of homes, buildings, parking areas.

Environmental Consequences

Alternative 1 would permanently impact approximately 4,784 square feet (0.11 acre) and temporarily impact 2,024 square feet (0.05 acre) of potentially jurisdictional Waters of the U.S. The effect would result from the construction of a new bridge over the Friant-Kern canal and the Lewis Creek canal

Alternative 2 would permanently affect about 6,414 square feet (0.15 acre) and temporarily affect 2,188 square feet (0.05 acre) of potentially jurisdictional Waters of the U.S. The effect would result from new bridge construction and installation of a box culvert at Lewis Creek.

Table 2.17 shows the potential impacts to Waters of the U.S. for each build alternative.

Table 2.17 Permanent Impacts to Waters of the U.S.

Location of Impact	Area of Impacts (acres)	
	Alternative 1	Alternative 2
Friant-Kern Canal	0.10	0.10
Lewis Creek Bridge	0.01	0.01
Lewis Creek frontage road	N/A	0.04
TOTAL	0.11	0.15

Natural Environment Study, July 2012

Because no wetlands were identified within the biological study area, the project would have no effect on any wetlands.

Avoidance, Minimization, and/or Mitigation Measures

Best management practices would be included so smallest practical footprint would be in place to minimize temporary, indirect, and permanent impacts to jurisdictional Waters of the U.S. Work in Lewis Creek will be limited to the dry season.

Proposed mitigation for the potential loss of jurisdictional aquatic resources would be achieved at a 1-acre to 1-acre ratio for all permanent impacts. Mitigation would include preservation, enhancement, and restoration of aquatic resources at an off-site U.S. Army Corps of Engineers-approved mitigation bank via an In-Lieu Fee Agreement.

Table 2.18 shows a summary of the compensatory mitigation proposed for permanent impacts resulting from the project.

Table 2.18 Mitigation Proposed for Impacts to Waters of the U.S.

Type of Impact	Area of Impacts (acres)		Compensation Ratio	Area of Mitigation (acres)	
	Alternative 1	Alternative 2		Alternative 1	Alternative 2
Permanent	0.11	0.15	1 acre to 1 acre	0.11	0.15
TOTAL	0.11	0.15		0.11	0.15

Source: Natural Environment Study, July 2012

2.3.2 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service, and the California Department of Fish and Game are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.3. All other special-status animal species are discussed here, including California Department of Fish and Game fully protected species and species of special concern, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration’s National Marine Fisheries Service candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- 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
- Sections 4150 and 4152 of the Fish and Game Code

Affected Environment

Caltrans biologists conducted literature review and field surveys for the project. Sensitive species lists were obtained from the California Natural Diversity Database to determine which special-status animal species had potential to occur within or near the proposed project. Based on the available information and conditions observed at the site, one

special-status animal species (American badger) was identified as potentially occurring within or near the proposed project.

American badgers

The American badger is listed as a California species of special concern. Even though suitable habitat is present, no American badgers or their diagnostic sign (scat, tracks) were seen during surveys of the biological study area.

American badgers are found throughout California from high alpine meadows to sea level (or below sea level in Death Valley, California). They are solitary creatures and occur in low densities throughout their range. Adult badgers are 30 to 35 inches in length with wide bodies that give a flat-backed appearance. American badgers are mostly gray with a distinct white stripe that originates at the nose, continues between the eyes and back over the head, and ends between the shoulders.

Migratory Birds and Bats

Subsequent to the Natural Environmental Study completed for the project, the Caltrans biological branch issued a memorandum on August 7, 2012 regarding migratory bird and bat protection during demolition. Bats and migratory birds are known to roost on bridges and isolated structures.

The pallid bat and the western mastiff bat are included on the California Natural Diversity Database obtained for the project and have the potential to occur within or near the proposed project.

Environmental Consequences

American badgers

No impacts to American badgers are anticipated to occur as a result of the proposed project. However, because of existing potential habitat, an American badger could build a den within the biological study area prior to construction.

Migratory Birds and Bats

Demolition of existing homes and barns is likely to occur during the process of, or as a result of, right-of-way acquisition. During the demolition of structures there is a potential for direct impact to bat and migratory birds, such as swallows, by potentially injuring or killing this species. Mortality would be highest during nesting.

Avoidance, Minimization, and/or Mitigation Measures

American badgers

A preconstruction survey for the American badger would be done within the biological study area. If an active badger den is detected, minimization efforts would be coordinated with the California Department of Fish and Game and could include a “no-work” buffer zone around an active den and/or, during construction, a qualified biologist would monitor an active den. Work may be temporarily suspended if denning badgers are found within the biological study area.

Migratory Birds and Bats

Based on the August 7, 2012 memorandum from the Caltrans biological branch (Appendix J), migratory bird and bat surveys will be conducted prior to the demolition of any structures within the proposed or existing right-of-way. Exclusionary measures and specific work windows have been incorporated into this project (Appendix F, Minimization and Mitigation Measures) to reduce impacts to these species.

2.3.3 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (16 United States Code Section 1531, et seq.). See also 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on 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 and the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service to ensure the agencies 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 Statement. Section 3 of the Federal Endangered Species Act 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, California Fish and Game Code Section 2050, et seq. The California Endangered Species Act 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 is the agency responsible for implementing the act. 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.”

The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions, an incidental take permit is issued by the California Department of Fish and Game. For species listed under both Federal Endangered Species Act and California Endangered Species Act requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Game may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

Caltrans biologists obtained sensitive species lists from the California Natural Diversity Database (U.S Fish and Wildlife Service) to determine which special-status species had potential to occur in or near the proposed project. The biologists also conducted literature reviews and field surveys. Surveys included habitat assessment and sampling for vernal pool branchiopods, also known as fairy shrimp. Based on available information and conditions observed at the site, four special-status animal species were identified as potentially occurring in or near the proposed project:

- Vernal Pool fairy shrimp
- Valley Elderberry Longhorn beetle
- Swainson’s hawk
- San Joaquin kit fox

Vernal Pool Fairy Shrimp

The vernal pool fairy shrimp is listed as a federally threatened species. Vernal pool fairy shrimp are small crustaceans 0.5 inch to 1 inch in length and typically appear semi-transparent or grayish-white. Vernal pool fairy shrimp are widely distributed in grassland habitats throughout California but are not abundant in any one location. Two major habitat types are characteristic for this species: small, clear, sandstone rock pools surrounded by foothill grasslands or small grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands. Within the Central Valley, it is not uncommon for vernal pool fairy shrimp to also occupy disturbed sites that lack other species presence. They have been collected from early December to early May.

Vernal pool branchiopod (fairy shrimp) protocol surveys were conducted from 2002 to 2004. Surveys followed the Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods as appended to federal take permit TE-796288-6.

Initially, 16 surveyed pools comprised an area of 1.55 acres. Vernal pool fairy shrimp were not found in the pools during the first and second year wet season full protocol surveys.

After these surveys were completed, the northern end of the proposed project was extended north from State Route 198 to post mile 0.51 on State Route 245. A reconnaissance survey was done and six additional roadside seasonal pools were observed north State Route 198 along the east shoulder of State Route 245. A reconnaissance wet-season survey for federally listed vernal pool branchiopods was completed in the 2005 wet-season. Six pools were surveyed totaling an area of 1.1 acres. No vernal pool fairy shrimp were found in these pools.

Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle is listed as federally threatened species. During field surveys in 2012, two elderberry shrubs were observed outside the project impact area but within the biological study area. The shrubs could not be inspected at close range for valley elderberry longhorn beetle exit holes.

The adult beetle lives on or close to elderberry shrubs, its host plant. Elderberry shrubs are found in both riparian (creek side) and non-riparian conditions. In California's Central Valley and adjacent foothills, up to elevations of about 3,000 feet above mean sea level, elderberry shrubs are designated as potential habitat for the elderberry longhorn beetle. Elderberry shrubs must have stems 1 inch or greater in diameter at ground level to serve as habitat for the beetle. Frequently, the only evidence of the beetle is an exit hole created by the larvae; however, larval galleries have been found in elderberry stems with no exit holes. In those cases, it was assumed the larvae either expired before constructing exit holes or were not mature enough to construct exit holes.

Swainson's Hawk

The Swainson's hawk is listed as a state threatened species. Swainson's hawks were observed nesting during field surveys; however, potential nesting habitat does exist within the biological study area for this migratory species.

The Swainson's hawk is a summer migrant in the Central Valley that breeds in riparian and oak savannah habitat and forages in adjacent grasslands or suitable grain or alfalfa fields or livestock pastures. The hawk roosts in large trees, but will roost on the ground if no trees are available. Breeding occurs from late March to late August, with peak activity occurring in late May through July. Nests are composed of a platform of sticks, bark and fresh leaves built in a tree or bush, or on a utility pole from 4-100 feet above ground. Nests occur in open riparian habitat, in scattered trees, or in small groves in sparsely vegetated flatlands. Nests are usually found near water in the Central Valley but they can also be found in arid regions. Clutch size is 2-4 eggs, with an incubation period of 25-28 days.

The Swainson's hawk was historically regarded as one of the most numerous raptors in the state. The dramatic decline in the population of the Swainson's hawk has been attributed to the loss of native nesting and foraging habitat, and more recently to the loss of suitable nesting trees. This loss of nesting habitat within riparian areas has been accelerated by flood control practices and bank stabilization programs.

San Joaquin Kit Fox

The San Joaquin kit fox is listed as a federally endangered and state threatened species. According to the California Natural Diversity Database, the San Joaquin kit fox has been known to occur within and next to the biological study area, though none were observed during the surveys. Orchards provide suitable corridors for animal movement, and kit fox may occur within the project area as a potential transient forager.

The biological study area and adjacent lands are intensively cultivated, and no natural habitat is present. The proposed project is composed primarily of agricultural lands. Although these agricultural lands are not suitable for denning, the land, according to the U.S. Fish and Wildlife Service, has potential foraging habitat for the fox.

The San Joaquin kit fox is a federally Endangered and State Threatened Species. The kit fox is the smallest fox in North America, with an average body length of 20 inches and average weight of about 5 pounds. They have large ears set close together, a slim body, and long bushy black-tipped tail carried low and straight. The coat ranges from a buff tan in the summer to silver-gray in the winter with the undersides varying from light buff to white.

The San Joaquin kit foxes, active year-round, inhabits grassland, scrubland, oak woodland, alkali sink scrubland, and vernal pool and alkali meadow communities, but are also known to occur in extensively modified habitats such as oil fields and wind turbine

facilities. Kit foxes are present, but generally less abundant, in other highly modified landscapes such as agricultural row crops, irrigated pastures, orchards, and vineyards.

The kit fox requires underground dens for temperature regulation, shelter, reproduction, and predator avoidance. Kit foxes dig their own dens but also commonly modify and use dens constructed by other animals. Dens are typically in loose-textured soils on slopes less than 40 degrees. Kit foxes also frequently use human-made structures (culverts, abandoned pipelines, banks in sumps or roadbeds) as den sites.

Environmental Consequences

Vernal Pool Fairy Shrimp

Due to a lack of suitable habitat within the biological study area, the project would have no direct, indirect, or cumulative effects to the vernal pool fairy shrimp. Some, if not all, of the sampled depressions will be affected by the proposed project, depending on the identified preferred alternative. The project would, therefore, have no effect on this species.

Valley Elderberry Longhorn Beetle

Because the proposed right-of-way is over 100 feet from their locations, the project would have no direct effect on the two elderberry shrubs identified within the biological study area. With the adoption of avoidance and minimization measures, the project would have no indirect effects to valley elderberry longhorn beetle. The project would, therefore, have no effect on this species.

Swainson's hawk

No impacts to the Swainson's hawk are anticipated as a result of the proposed project. However, because of existing potential nesting habitat, a Swainson's hawk could build a nest within the biological study area prior to construction.

San Joaquin kit fox

No kit foxes were observed during the biological surveys. However, there is potential for the San Joaquin kit fox to be present within the biological study area according to the California Natural Diversity Database, 2012. Because the San Joaquin kit fox have been known to occur within and adjacent to the biological study area and because they may occur as a potential forager, construction-related activities could cause direct effects such as mortality, loss or destruction of potential foraging habitat, and noise disturbance.

A direct effect to the San Joaquin kit fox would occur in the form of habitat loss, fragmentation, and degradation. Although suitable San Joaquin kit fox habitat for denning does not exist within the biological study area, the proposed construction would result in the permanent loss of potential foraging habitat within the agricultural lands. The project would, therefore, may have an effect on this species. Table 2.19 shows the estimated acreage of temporary and permanent impacts to San Joaquin kit fox foraging habitat.

Table 2.19 Impacts to San Joaquin Kit Fox Foraging Habitat

Alternative	Temporary Area of Impact (acres)	Permanent Area of Impact (acres)	Total Area of Impact (acres)
1	240.20	132.93	373.13
2	249.93	120.55	370.48

Source: Natural Environment Study, July 2012

Cumulative effects resulting from the Terra Bella Expressway project south of the proposed projects is likely to affect the San Joaquin kit fox through an overall loss of foraging habitat, which is being mitigated through the preservation of prime San Joaquin kit fox habitat at an approved U.S. Fish and Wildlife Service location. The Terra Bella Expressway is the largest of the development projects in the vicinity of the proposed Tulare Expressway. This phased project will have similar impacts to San Joaquin kit fox foraging habitat as the Tulare 65 expressway project.

Another project in the area is the Strathmore Median Barrier project, which adopted the use of double thrie-beam metal median barriers as a minimization measure for potential impacts to the San Joaquin kit fox. This minimization measure would allow the fox to pass through the barrier, a movement not possible with a concrete median barrier. This effort was employed with the goal of avoiding impacts to San Joaquin kit fox migration corridors.

Avoidance, Minimization, and/or Mitigation Measures

Vernal Pool Fairy Shrimp

No avoidance, minimization or mitigation measures are proposed for vernal pool fairy shrimp.

Valley Elderberry Longhorn Beetle

An environmentally sensitive area would be established about 130 feet from the elderberry shrubs to avoid unplanned, accidental, or construction-related impacts.

Swainson's hawk

A preconstruction survey for Swainson's hawk would be done within the biological study area and within a 0.5-mile radius around the biological study area. If an active Swainson's hawk nest is found, minimization efforts would be coordinated with the California Department of Fish and Game and may include a "no work" buffer zone around an active nest and/or a qualified biologist would monitor an active nest during construction activities to ensure no interference with the hawks' breeding activities would occur. In addition, a standard special provision for bird protection would be included in the construction contract and would minimize impacts to this special-status species.

San Joaquin kit fox

A preconstruction survey and standard special provisions for the San Joaquin kit fox would be included in the construction contract and would minimize impacts to this special-status species. Construction activities would take place during daytime hours to avoid potential disruption of San Joaquin kit fox nocturnal (night-time) activities.

The mitigation measures proposed below would be discussed with and approved by the U.S. Fish and Wildlife Service during the Section 7 formal consultation:

- Pre-construction educational meeting—An employee education program regarding the San Joaquin kit fox would be conducted prior to the start of construction by a Caltrans biologist or other qualified biologist.
- Protection provisions—San Joaquin kit fox protection provisions would be included in the Construction Contract Special Provisions, and all persons on the project site would be required to adhere to these provisions.
- Construction monitoring—A Caltrans biologist or other qualified biologist would periodically monitor project construction based on specific conditions determined during Section 7 formal consultation with the U.S. Fish and Wildlife Service.
- Land acquisition or conservation easement—Agricultural lands permanently affected within the project area would be mitigated for at a 1.1-acre to 1-acre ratio and temporary impacts would be compensated for at a 0.5-acre to 1-acre ratio. Table 2.20 shows the estimated amount of permanent and temporary impacts for the two build alternatives and the potential mitigation acreage.

Table 2.20 San Joaquin Kit Fox Mitigation Compensation

Type of Impact	Area of Impacts (acres)		Compensation Ratio	Area of Mitigation (acres)	
	Alternative 1	Alternative 2		Alternative 1	Alternative 2
Permanent	132.93	120.55	1.1 acre to 1 acre	146.22	132.61
Temporary	240.20	249.93	0.5 acre to 1 acre	120.10	124.97
TOTAL	373.13	370.48		266.32	257.58

Source: Natural Environment Study, July 2012

2.3.4 Invasive Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service, and the California Department of Fish and Game are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the Federal Endangered Species Act or State Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.2. All other special-status animal species are discussed here, including the California Department of Fish and Game fully protected species and species of special concern, and U.S. Fish and Wildlife Service or the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service candidate species.

- Federal laws and regulations pertaining to wildlife include the following:
- National Environmental Policy Act
- Migratory Bird Treaty Act
- 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
- Section 2080.1 and 2081 of the Fish and Game Code

Affected Environment

Biologists identified the following invasive plant species within the biological study area: yellow star thistle, Bermuda grass, johnsongrass, puncture vine, and common Russian thistle. These plant species were identified on the California Noxious Weeds List (U.S. Department of Agriculture, 2012) and are categorized as “C” species, meaning they are not subject to state enforcement except to provide for pest cleanliness in nurseries. There were no invasive species identified from the Federal Weed List (2010).

Environmental Consequences

In compliance with the Executive Order 13112 for invasive species, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not introduce species listed as noxious weeds.

Avoidance, Minimization, and/or Mitigation Measures

Only clean fill would be imported to the project site. Any excess soil that cannot remain on-site would be disposed of in a manner that will not spread invasive plants and their seeds. If this is an extensive amount of fill, it can be modified to only include the top six inches of soil. Care would be taken to avoid including any species that occur on the California Invasive Plant Council’s *Invasive Plant Inventory* in the Caltrans erosion control seed mix or landscaping plans for the project.

Chapter 3 California Environmental Quality Act Evaluation

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

One primary difference between the National Environmental Policy Act and the California Environmental Quality Act is the way significance is determined. Under the National Environmental Policy Act, significance is used to determine whether an environmental impact statement, or some lower level of documentation, will be required. The National Environmental Policy Act requires that an environmental impact statement 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 the California Environmental Quality Act may not be of sufficient magnitude to be determined significant under the National Environmental Policy Act. Under the National Environmental Policy Act, once a decision is made regarding the need for an environmental impact statement, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. The National Environmental Policy Act does not require that a determination of significant impacts be stated in the environmental documents.

The California Environmental Quality Act, on the other hand, does require Caltrans 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, an environmental impact report must be prepared. Each significant effect on the environment must be disclosed in the environmental impact report and mitigated, if feasible.

In addition, the California Environmental Quality Act Guidelines list a number of mandatory findings of significance that also require the preparation of an environmental impact report. There are no types of actions under the National Environmental Policy Act that parallel the findings of mandatory significance under the California Environmental Quality Act. This chapter discusses the effects of this project and California Environmental Quality Act significance.

3.1 Determining Significance under the California Environmental Quality Act

“Significant effect” on the environment means substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project such as land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself must not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant. A definitive statewide meaning for the term significant effect is not possible since the environmental effects caused by a project vary with the setting.

3.2 Discussion of Significant Impacts

Chapter 2 discusses affected environments, potential impacts, and avoidance, minimization and/or mitigation measures. Chapter 3 discusses the impacts addressed in Chapter 2 that fall under California Environmental Quality Act jurisdiction.

3.2.1 Less than Significant Effects of the Project

Caltrans determined the proposed project would have less than significant effects on all the environmental resources identified within the project corridor except for those discussed in the next section. Please refer to Chapter 2 for a discussion of the effected environments, environmental consequences and avoidance, and minimization and/or mitigation measures for environmental resources within the project corridor.

3.2.2 Significant Environmental Effects of the Project

Caltrans determined, with minimization and mitigation measures, the project would have no significantly adverse effects on the following resources:

Biological Resources (Wetlands and Other Water of the U.S.)

The project would affect approximately 0.11 to 0.15 acre of jurisdictional Waters of the U.S., depending on the preferred alternative. The effect would result from new bridge construction and installation of a box culvert at Lewis Creek.

Because no wetlands were identified within the biological study area the project would not affect any wetlands.

Biological Resources—San Joaquin Kit Fox

No San Joaquin kit fox was observed during the biological surveys. However, according to the 2012 California Natural Diversity Database there is potential for the fox to be present within the biological study area as a forager. Construction-related activities, therefore, have potential to cause direct effects such as mortality, loss or destruction of potential foraging habitat, and noise disturbance.

Although suitable San Joaquin kit fox denning habitat does not exist within the biological study area, construction would result in the permanent loss of potential foraging habitat within the agricultural lands through fragmentation and degradation.

3.2.3 Unavoidable Significant Environmental Effects

Section 15126.2(b) of the California Environmental Quality Act Guidelines requires that an environmental impact report discuss significant impacts. When such impacts cannot be reduced to a less than significant level, the environmental impact report must describe their implications and the reasons why the project is being proposed in spite of the impacts.

As discussed above in Section 3.2.2, all potential impacts identified for the project can be mitigated to a level below significance.

3.2.4 Climate Change

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

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change by the United Nations and World Meteorological Organization's in 1988, has led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These

efforts are primarily concerned with the emissions of greenhouse gas related to human activity: carbon dioxide (CO₂), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 – tetrafluoroethane), and HFC-152a (difluoroethane).

There are typically two terms used when discussing the impacts of climate change. Greenhouse gas mitigation is a term for reducing greenhouse gas emissions in order to reduce or mitigate the impacts of climate change. Adaptation refers to planning for and adapting to climate change impacts such as adjusting transportation design standards to withstand more intense storms and higher sea levels.¹

Transportation sources (passenger cars, light duty trucks, other trucks, buses and motorcycles) in the state of California make up the largest source (second to electricity generation) of greenhouse gas emitting sources. Conversely, the main source of greenhouse gas emissions in the United States is electricity generation followed by transportation. The dominant greenhouse gas emitted is CO₂, mostly from fossil fuel combustion.

There are four primary strategies for reducing greenhouse gas emissions from transportation sources: 1) improve system and operation efficiencies; 2) reduce growth of vehicle miles traveled; 3) transition to lower greenhouse gas fuels; and 4) improve vehicle technologies. To be most effective all four should be pursued collectively. The following regulatory setting section outlines state and federal efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

Regulatory Setting

State

With the passage of several pieces of legislation including State Senate and Assembly Bills and Executive Orders, California launched an innovative and pro-active approach to dealing with greenhouse gas emissions and climate change at the state level.

Assembly Bill 1493 (AB 1493), Pavley. Vehicular Emissions: Greenhouse Gases (AB 1493), 2002; requires the California Air Resources Board to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year. In June 2009, the United States Environmental Protection Agency administrator granted a Clean Air Act waiver of preemption to California. This

¹ http://climatechange.transportation.org/ghg_mitigation/

waiver allowed California to implement its own greenhouse gas emission standards for motor vehicles beginning with model year 2009. California agencies will be working with Federal agencies to conduct joint rulemaking to reduce greenhouse gas emissions for passenger cars model years 2017-2025.

Executive Order S-3-05: (signed on June 1, 2005, by Governor Arnold Schwarzenegger) the goal of this Executive Order is to reduce California's greenhouse gas 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.

Assembly Bill, the Global Warming Solutions Act of 2006: Assembly Bill 32 sets the same overall greenhouse gas emissions reduction goals as outlined in Executive Order S-3-05, while further mandating that the California Air Resources Board 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.

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 ten percent by 2020.

Senate Bill 97 (Chapter 185, 2007): required the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the State California Environmental Quality Act Guidelines for addressing greenhouse gas emissions. The Amendments became effective on March 18, 2010.

Federal

Although climate change and greenhouse gas reduction is a concern at the federal level; currently there are, no regulations or legislation that have been enacted specifically addressing greenhouse gas emissions reductions and climate change at the project level. Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the "National Clean Car Program" and Executive Order 13514- Federal Leadership in Environmental, Energy and Economic Performance.

Executive Order 13514 is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also direct federal agencies to participate

in the interagency Climate Change Adaptation Task Force, which is engaged in developing a U.S. strategy for adaptation to climate change.

On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act and that the U.S. Environmental Protection Agency has the authority to regulate greenhouse gases. The Supreme Court held that the U.S. Environmental Protection Agency administrator must determine whether or not emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the U.S. Environmental Protection Agency administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator found that the current and projected concentrations of the six key well-mixed greenhouse gases--carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)--in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator found that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

Although these findings did not themselves impose any requirements on industry or other entities, this action was a prerequisite to finalizing the U.S. Environmental Protection Agency's *Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles*, which was published on September 15, 2009². On May 7, 2010 the final *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards* was published in the Federal Register.

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

² <http://www.epa.gov/climatechange/endangerment.html>

regulations. These steps were outlined by President Obama in a memorandum on May 21, 2010.³

The final combined U.S. Environmental Protection Agency and National Highway Traffic Safety Administration standards that make up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards will cut greenhouse gas emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On January 24, 2011, the U.S. Environmental Protection Agency along with the U.S. Department of Transportation and the State of California announced a single timeframe for proposing fuel economy and greenhouse gas standards for model years 2017-2025 cars and light-trucks. Proposing the new standards in the same timeframe (September 1, 2011) signals continued collaboration that could lead to an extension of the current National Clean Car Program.

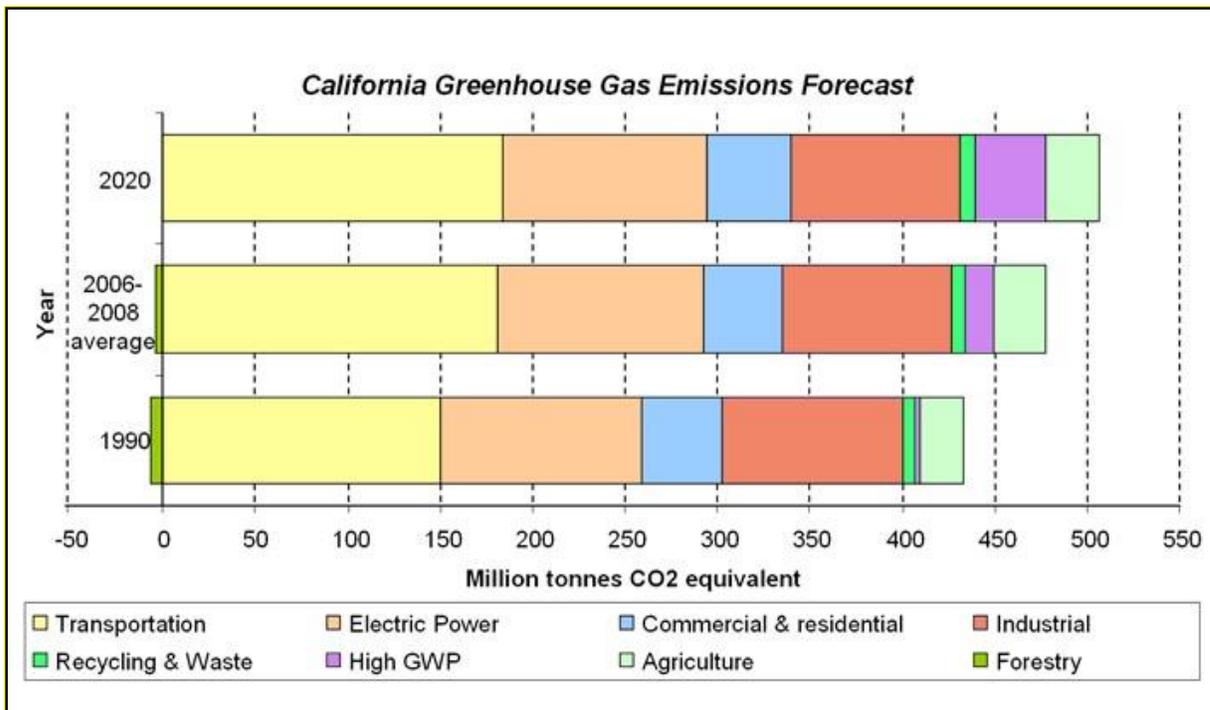
Project Analysis

The individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of greenhouse gas.⁴ In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." See California Environmental Quality Act Guidelines sections 15064(h)(1) and 15130. To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

³ <http://epa.gov/otaq/climate/regulations.htm>

⁴ This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the SCAQMD (Chapter 6: : The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

The Assembly Bill 32 Scoping Plan contains the main strategies California will use to reduce greenhouse gas. As part of its supporting documentation for the Draft Scoping Plan, the California Air Resources Board released the greenhouse gas inventory for California (Forecast last updated: 28 October 2010). The forecast is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the greenhouse gas inventory for 2006, 2007, and 2008.



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

Figure 3-1 California Greenhouse Gas Inventory

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

Caltrans that was published in December 2006 (see Climate Action Program at Caltrans (December 2006)).⁵

One of the main strategies in the Caltrans Climate Action Program to reduce greenhouse gas emissions is to make California’s transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (see Figure 3-2). To the extent that a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors greenhouse gas emissions, particularly CO₂, may be reduced.

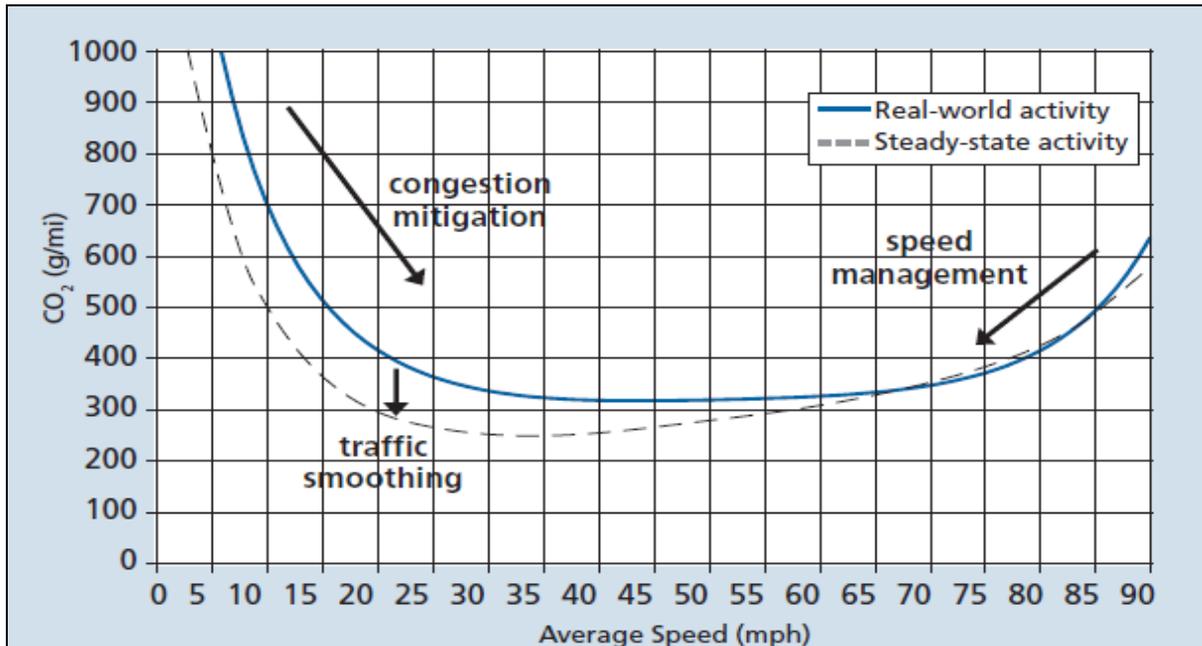


Figure 3-2 Possible Effect of Traffic Speeds in Reducing On-Road CO₂ Emission⁶

The Tulare Expressway project proposes to realign State Route 65 in Tulare County from Hermosa Street in the City of Lindsay to State Route 245 approximately one-half mile north of State Route 198 northeast of the City of Exeter. The total length of the project would be about 9.3 miles with construction of a two-lane expressway on a four-lane right-of-way (8.8 miles) that would include frontage roads, railroad overhead crossings,

⁵ Caltrans Climate Action Program is located at the following web address: http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

⁶ Traffic Congestion and Greenhouse Gases: Matthew Barth and Kanok Boriboonsomsin (TR News 268 May-June 2010) <<http://onlinepubs.trb.org/onlinepubs/tnews/tnews268.pdf>>

new bridges, controlled access, and utility relocations. The project would also include about 0.5 mile of transition improvements on State Route 245 starting at State Route 198.

The following is the purpose of the proposed project:

- Provide route continuity
- Increase the capacity for interregional traffic
- Improve safety
- Meet forecasted traffic volume

The project is needed to provide a continuous expressway throughout the corridor to support an uninterrupted flow of traffic. State Route 65 south of Hermosa Street in Lindsay is classified as an expressway. The route ends at State Route 198, also classified as an expressway.

For many years, Spruce Avenue (Road 204) has been considered for transportation improvements to this corridor. In 1962, the California Highway Commission adopted Spruce Avenue as the route for a portion of State Highway Route 129 (now State Route 65) between Avenue 228 at Lindsay and Avenue 384 north of Woodlake. The California Department of Transportation prepared a Project Study Report for the purpose of programming funds for the Project Approval and Environmental Design approved in 2000.

In addition, the Tulare County Association of Governments had a Major Investment Study completed to evaluate alternative transportation options for the region. The Major Investment Study process involved extensive public meetings to discuss and evaluate five transportation alternatives between Exeter and Lindsay. The five alternatives included improving State Route 65 on the existing alignment, improving Spruce Avenue (Road 204), passenger rail service, expanded transit service, and a No-Build Alternative. The study revealed the forecasted regional growth would increase demands on the existing system. The outcome of the study recommended upgrading Spruce Avenue (Road 204) to a four-lane expressway to supply a travel route that would efficiently handle local, regional, and statewide traffic.

It is anticipated that the execution of each build alternative would successfully address the capacity need of the project for 20 years following construction. Traffic data used for the project analysis (see Chapter 1, Section 1.2.2.3 Capacity and Congestion) shows that Spruce Avenue (Road 204) has more traffic volume than the existing State Route 65 except through the city of Exeter. The project is expected to remove regional traffic from

State Route 65 and existing Spruce Avenue (Road 204) and provide an improved level of service.

Quantitative Analysis

The build alternatives would relieve traffic congestion and improve traffic flow by providing a new alignment for State Route 65. The existing county roads being considered for this project are already being used for travel instead of the existing section of State Route 65.

Gasoline- and diesel-powered vehicles operate less efficiently at low speeds. The road surface and level of service would be improved if the project is built. The existing conditions on State Route 65 are at a peak hour level of service F.

If neither Alternative 1 nor Alternative 2 is built, level of service would still drop within level of service F. In contrast, the projected build level of service is B/C for opening year 2018. By horizon year 2038, the build level of service would be C/D.

Greenhouse gas emissions analysis and forecasting are a relatively new science using existing air modeling tools not originally designed for modeling greenhouse gases.

Estimated annual carbon dioxide (CO₂) emissions were modeled using CT-EMFAC 2007. The average daily traffic count was the same for the No-Build Alternative and Alternative 1 and Alternative 2. For the no-build and build models, level of service and thus the average speeds were different. The model assumed a peak hour (two hours per day) with prevailing speeds of 5–45 miles per hour and a non-peak hour with prevailing free-flow speed of 35–60 miles per hour for the No-Build Alternative. For Alternative 1 and Alternative 2, the peak hour speed assumption was 40–45 miles per hour, and the non-peak hour speed assumption was 35–55 miles per hour. The total vehicle miles traveled were allotted 2 hours for peak and 22 hours for off-peak for all scenarios. Annual average daily traffic includes 8 percent truck traffic.

The results indicate only a rough estimate of emissions based on projected annual average daily traffic data. Table 3.1 displays carbon dioxide emissions in tons per year for the build alternatives and the No-Build Alternative. Other factors exist that would influence a total effect the project would have on greenhouse gasses. Current modeling tools and guidelines are not available at this time to estimate any effect on global warming from this specific project.

Table 3.1 Estimated Carbon Dioxide Emissions for All Alternatives (Tons per Year)

Volume	Existing	No-Build Alternative			Build Alternatives		
	2007	2018	2028	2038	2018	2028	2038
Carbon Dioxide (CO ₂)	1,362	1,635	2,012	2,555	1,635	1,975	2,433

Source: Caltrans Central Region Environmental Engineering December 2009

According to EMFAC modeling results, Alternative 1, Alternative 2, and the No-Build Alternative would result in more greenhouse gasses than the existing condition in 2007. This is primarily because of EMFAC’S focus on predicted traffic volumes and speeds, which would increase with the additional two lanes the project adds to the highway.

The future build alternatives are predicted to reduce carbon dioxide emissions when compared to the No-Build Alternative. The No-Build Alternative indicates 3 more tons of carbon dioxide emissions in 2018, 127 tons in 2028, and 122 tons in 2038. The build alternatives, however, would improve mobility in the corridor.

California Environmental Quality Act Conclusion

As discussed above, the modeling for the project does show that greenhouse gas emissions will increase over the existing conditions. However, the emissions would be less over the lifetime of the project for the future Build Alternative as opposed to not building this project. In light of this and the limitations discussed in the preceding sections it is Caltrans’ determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and California Environmental Quality Act significance, it is too speculative to make a determination on the project’s direct impact and its contribution on the cumulative scale to climate change. However, as previously stated, Caltrans does anticipate a reduction in greenhouse gas emissions with the project. Nonetheless, Caltrans is taking further measures to help reduce energy consumption and greenhouse gas emissions. These measures are outlined in the following section.

Assembly Bill 32 Compliance

Caltrans continues to be actively involved on the Governor’s Climate Action Team as California Air Resource Board works to implement the Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in Assembly Bill 32. Many of the strategies Caltrans uses to help meet the targets in Assembly Bill 32 come from the California Strategic Growth Plan, which is updated each year. Former-Governor Arnold Schwarzenegger’s Strategic Growth Plan calls for a \$222 billion infrastructure

improvement program to fortify the state's transportation system, education, housing, and waterways, including \$100.7 billion in transportation funding during the next decade. The Strategic Growth Plan targets a significant decrease in traffic congestion below today's level and a corresponding reduction in greenhouse gas 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 are expected to reduce congestion. The Strategic Growth Plan relies on a complete systems approach to attain CO₂ reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements (see Figure 3-3).

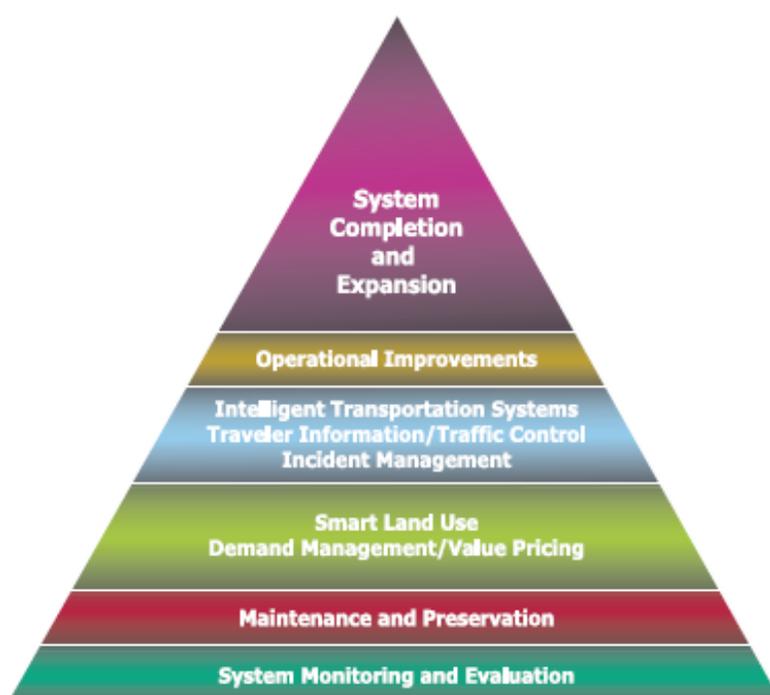


Figure 3-3 The Mobility Pyramid

Caltrans is supporting efforts to reduce vehicle miles traveled by planning and using 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 trucks, and heavy-duty trucks. Caltrans is doing this by supporting on-going research efforts at universities, supporting legislative efforts to increase fuel economy, and participation on the Climate Action Team. It is important to note, however, that

control of fuel economy standards is held by U.S. Environmental Protection Agency and Air Resources Board. Lastly, alternative fuels use is also being considered; Caltrans participates in funding for alternative fuel research at University of California, Davis.

Table 3.2 shows statewide efforts that Caltrans uses to reduce greenhouse gas emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).

Table 3.2 Climate Change Strategies

Strategy	Program	Partnership		Method/Process	Estimated 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
	Planning Grants	Caltrans	Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	.975	7.8
Operational Improvements & Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	.07	2.17
Mainstream Energy & GHG into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, Cal EPA, CARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	.0045	.0065 .045 .0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	.117	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix	1.2	4.2
				25% fly ash cement mix	.36	3.6
	> 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	18.18

To the extent that it is applicable or feasible for the project and through coordination with the project development team, the following measures will be included to reduce the greenhouse gas emissions and potential climate change impacts from the project:

- Caltrans and the California Highway Patrol are working with regional agencies to implement Intelligent Transportation Systems to help manage the efficiency of the existing highway system. Intelligent Transportation Systems is commonly referred to as electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.
- In addition, the Tulare County Association of Governments provides ridesharing and park-and-ride facilities to help manage the growth in demand for highway capacity.
- Landscaping reduces surface warming, and through photosynthesis, decreases CO₂. The project proposes planting in the intersection slopes, drainage channels, and seeding in areas adjacent to frontage roads and planting a variety of different-sized plant material and scattered skyline trees where appropriate but not to obstruct the view of the mountains. Caltrans has committed to planting a minimum of 40 trees. These trees will help offset any potential CO₂ emissions increase. Based on a formula from the Canadian Tree Foundation,⁷ it is anticipated that the planted trees will offset between 7-10 tons of CO₂ per year.
- The project would incorporate the use of energy efficient lighting, such as LED traffic signals. LED bulbs cost \$60 to \$70 apiece but last five to six years, compared to the one-year average lifespan of the incandescent bulbs previously used. The LED bulbs themselves consume 10 percent of the electricity of traditional lights, which will also help reduce the projects CO₂ emissions.⁸
- According to Caltrans Standard Specifications, the contractor must comply with all local Air Pollution Control District's rules, ordinances, and regulations in regards to air quality restrictions. Include information regarding the local air quality regulations regarding idling time during construction.

Adaptation Strategies

“Adaptation strategies” refer to how Caltrans and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in

⁷ Canadian Tree Foundation at http://www.tcf-fca.ca/publications/pdf/english_reduceco2.pdf. For rural areas the formula is: # of trees/360 x survival rate = tones of carbon/year removed for each of 80 years.

⁸ Knoxville Business Journal, “LED Lights Pay for Themselves,” May 19, 2008 at <http://www.knoxnews.com/news/2008/may/19/led-traffic-lights-pay-themselves/>.

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

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality, the Office of Science and Technology Policy, and the National Oceanic and Atmospheric Administration released its interagency report October 14, 2010 outlining recommendations to President Obama on how federal agency policies and programs can better prepare the United States to respond to the effects of climate change. The progress report of the Interagency Climate Change Adaptation Task Force recommends that the federal government implement actions to expand and strengthen the nation's capacity to better understand, prepare for, and respond to climate change.

Climate change adaption must also involve the natural environment as well. Efforts are underway statewide to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and use mitigation strategies for programs and projects.

On November 14, 2008, Governor Schwarzenegger signed Executive Order S-13-08 which directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change. This executive order set in motion several agencies and actions to address the concern of sea level rise.

The California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state and federal public and private entities to develop. *The California Climate Adaptation Strategy* (December 2009)⁹ summarizes the best known science on climate change effects to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

⁹ <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

The strategy outline is in direct response to Executive Order S-13-08 that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the adaptation strategy document: Environmental Protection; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies for different sectors that include: public health; biodiversity and habitat; ocean and coastal resources; water management; agriculture; forestry; and transportation and energy infrastructure. As data is developed and collected, the state's adaptation strategy will be updated to reflect current findings.

The Resources Agency was also directed to request the National Academy of Science to prepare a Sea Level Rise Assessment Report by December 2010¹⁰ to advise on the following to help California plan for future sea level rise:

- Relative sea level rise projections for California, Oregon and Washington, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates
- The range of uncertainty in selected sea level rise projections
- A synthesis of existing information on projected sea level rise impacts to state infrastructure such as roads, public facilities and beaches, natural areas, and coastal and marine ecosystems
- A discussion of future research needs regarding sea level rise

Prior to the release of the final Sea Level Rise Assessment Report, all state agencies that are planning to construct projects in areas vulnerable to future sea level rise were directed to consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information regarding local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data.

Until the final report from the National Academy of Sciences is released, interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise.

¹⁰ The Sea Level Rise Assessment report is currently due to be completed in 2012 and will include information for Oregon and Washington State as well as California.

All projects that have filed a Notice of Preparation, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects as of the date of Executive Order S-13-08 may, but are not required to, consider these planning guidelines. A Notice of Preparation was for filed for the project in September 2009 and the first phase of the project is programmed for 2019.

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

Currently, Caltrans is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change impacts, Caltrans has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, Caltrans will be able review its current design standards to determine what changes, if any, may be warranted in order to protect the transportation system from sea level rise.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is an active participant in the efforts being conducted in response to Executive Order S-13-08 and is mobilizing to be able to respond to the National Academy of Science report on Sea Level Rise Assessment, due for release in 2012.



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

4.1 Scoping

The Tulare County Association of Governments undertook a Major Investment Study in June 1999 to evaluate alternative transportation options for the region. The Major Investment Study process involved extensive public meetings to discuss and evaluate transportation alternatives Exeter and Lindsay. This project has support both from local government agencies and the general public with the exception of a few individuals whose property may be affected by right-of-way acquisitions for a new alignment. During the inception of the Major Investment Study, input was obtained from a concerned party in the formulation of Alternative 3. Caltrans prepared a Project Study Report for the proposed corridor improvements. Improvements were approved in February 2000.

In May 2004, Caltrans completed a Value Analysis Study to reevaluate the alternatives for the project. The value analysis team, composed of representatives from Caltrans and Tulare County, enlisted the assistance of the stakeholders and designers to develop the evaluation criteria that would best reflect their specific requirements. Five Value Analysis alternatives were conditionally accepted for consideration: one alternative straightened the Alternative 2 alignment; two alternatives proposed changes at the railroad crossings; one alternative proposed local access by adding an intersection; and one alternative proposed drainage basins to reduce the need for imported borrow dirt.

Public Information Meetings

The first public information meeting/open house was held at the Veteran's Memorial Building in the city of Exeter on July 12, 2001 from 4:00 p.m. to 7:00 p.m. The meeting was conducted in an open house format with the goal of providing information about the

proposed project and gathering information from the public. The program schedule was unstructured, and the public could attend at any time during the three-hour period, view the informational display boards, and address Caltrans staff with their questions and comments.

Invitations for the public to participate in the meeting were published in several local newspapers: *The Exeter Sun*, on June 27 and July 3, 2001; the *Lindsay Gazette* on June 27 and July 4, 2001; and the *Foothills Advertiser* on July 4, 2001. Invitation letters were mailed to city residents; Tooleville residents; local businesses; public agencies; federal, state, and local officials; and property owners along the proposed project alignments.

Three build alternatives and a No-Build Alternative were under consideration. About 100 visitors signed the attendance sheet and 58 people submitted preferences for an alternative: 22 percent preferred Alternative 1; 14 percent preferred Alternative 2; 40 percent preferred Alternative 3; and 24 percent had no preference.

A second public information meeting/open house was held at the Veteran's Memorial Building in the city of Exeter on October 29, 2009 from 4:30 p.m. to 7:30 p.m. The meeting presented two proposed build alternatives and the elimination of Alternative 3, an earlier build alternative.

The meeting was also conducted in an open house format with the goal of gathering information from the public. The program schedule was unstructured and the public was free to come and go during the evening. Invitations for the public to participate in the meeting were published in local newspapers: *The Foothills Sun-Gazette* on September 30 and October 21, 2009 and the *El Sol* (Spanish-language newspaper) on October 2 and October 23, 2009. Invitation letters were mailed to property owners along the proposed project alignment, city residents, Tooleville residents, local businesses, public agencies, and federal, state, and local officials. Attendees of the 2001 public meeting were also invited.

About 110 residents and interested parties attended the meeting and 38 comment cards were submitted. One person submitted a comment card with Alternative 1 as their preference while 24 preferred Alternative 2. In general, the oral comments received from residents preferred the alternative that would not have a direct affect to their property; for example, residents directly affected by Alternative 1 preferred Alternative 2 and vice versa. Most Tooleville residents wanted confirmation that Alternative 3 was withdrawn from further consideration.

During the circulation period for the draft environmental document, a public information meeting/open house would be scheduled in Exeter to gather comment from the public. The meeting would follow the same format as previous meetings held for the proposed project.

Notice of Preparation

A Notice of Preparation of an Environmental Impact Report was sent to the State Clearinghouse on September 29, 2009. The following agencies and interested parties were also notified:

- California Transportation Commission
- California Air Resources Board
- California Highway Patrol
- Caltrans District 6 Planning
- Central Valley Flood Protection Board
- California Department of Fish and Game
- California Department of Conservation
- California Department of Food and Agriculture
- California Department of Health Services
- Native American Heritage Commission
- Office of Historic Preservation
- California Department of Parks and Recreation
- California Department of Public Utilities Commission
- California Regional Water Quality Control Board, Region 5
- State Lands Commission
- California State Water Resources Control Board
- California Department of Water Resources
- Tulare County Association of Governments
- San Joaquin Valley Unified Air Pollution Control District
- Tulare County Planning Department
- Natural Resources Conservation

4.2 Consultation with Responsible/Coordinating Agencies and Interested Parties

Intergovernmental Consultation for Biological Resources

California Department of Fish and Game

A Caltrans' contract biologist initiated informal consultation with the California Department of Fish and Game by conducting a site visit with staff on June 16, 2003. Assessing whether a 1600 permit for streambed alteration would be required was the primary purpose of the site visit. Initially, the California Department of Fish and Game determined no 1600 permit would be required for work within Lewis Creek and the Friant-Kern Canal as long as nesting birds (swallows) were protected.

On August 19, 2004, a Caltrans biologist contacted the new California Department of Fish and Game biologist assigned to the area inquiring into whether he had any biological concerns. The California Department of Fish and Game biologist told Caltrans of quarterly spotlight surveys conducted for the San Joaquin kit fox and the survey results. He stated he did not believe the project would have an effect on any other special-status species in the area.

On March 2, 2012, a Caltrans biologist contacted the California Department of Fish and Game to inquire if a 1600 permit would be necessary. On March 19, 2012, Caltrans was informed a formal notification would need to be submitted for work within Lewis Creek and the Friant-Kern Canal.

A 1600 permit from the California Department of Fish and Game for streambed alteration is required for the project. During the plans, specifications, and estimates phase of the project, a 1600 permit application would be submitted to the California Department of Fish and Game.

U.S. Fish and Wildlife Service

Caltrans initiated informal consultation with the U.S. Fish and Wildlife Service on November 9, 2002. A request was made for written approval to begin the first year wet-season survey for federally listed vernal pool branchiopods. Authorization to initiate the first wet-season survey was issued on November 14, 2002. Subsequent correspondence between Caltrans and this consulting resource agency was made yearly through June 2006 regarding wet-season studies, reconnaissance studies, and submission of ninety-day reports for the federally- listed vernal pool branchiopods. No species were identified within the project limits.

A Section 7 Biological Opinion from the U.S. Fish and Wildlife Service for Threatened and Endangered Species such as the San Joaquin kit fox is required for the project. Once the preferred alternative is identified, Section 7 consultation with the U.S. Fish and Wildlife Service starts with the submittal of a Biological Assessment.

U.S. Army Corps of Engineers

Caltrans initiated informal consultation with the U.S. Army Corps of Engineers March 19, 2012. An inquiry was made as to whether Lewis Creek and the Friant–Kern Canal were considered Water of the United States. On March 21, 2012, confirmation that both waterways are likely to be jurisdictional Waters of the United States was received from this resource agency.

A 404 Nationwide Permit from the U.S. Army Corps of Engineers for permanent impacts to Waters of the United States is likely to be required for the project. During the plans, specifications, and estimates phase of the project, a 404 permit application would be submitted to the U.S. Army Corps of Engineers.

Intergovernmental Consultation for Air Quality

Interagency consultation for the project began on December 28, 2009. In separate written responses, both the Federal Highway Administration (January 12, 2010) and the U.S. Environmental Protection Agency (January 7, 2010) concurred with the finding that the State Route 65 Expressway Project is not a project of air quality concern.

Intergovernmental Consultation for Cultural Resources

Native American Heritage Commission

Through preparation of the technical studies for cultural resources, in January 2001 a request was made to the Native American Heritage Commission for a review of the Sacred Lands Inventory to determine if any known cultural properties are present within or adjacent to the Area of Potential Effects. The Native American Heritage Commission response is in the Historic Property Survey Report, a confidential summary document. The Native American Heritage Commission also provided a response identifying contacts for tribes, tribal communities, and Native American representatives who may have knowledge of cultural resources in the vicinity of the project or may have interest in the project.

Native Americans

In September 2002, a letter regarding the cultural resources inventory completed for the proposed project, a project map, and project description were sent to the following tribal representatives:

- Tule River Indian Tribe, Duane Garfield Sr., Chairperson
- Kern Valley Indian Community, Robert Robinson, Chairperson
- Wukchumni Tribal Council, Susan Wiese, Chairperson

In September 2009, a letter regarding the cultural resources inventory completed for the proposed project design changes, copies of the 2004 Study Area map, and the 2009 Supplemental Project Area map (draft) were sent to the following tribal representatives:

- Santa Rosa Rancheria, Mr. Ruben Barrios, Chairman,
- Santa Rosa Rancheria, Mr. Lalo Franco, Cultural Resources
- Tule River Reservation, Mr. Ryan Garfield, Chairman
- Tule River Reservation , Ms. Keri Vera, EPA Coordinator
- Eshom Valley Band of Indians, Mr. Kenneth Woodrow, Chairman
- Wukchumni Tribe, Ms. Susan Wiese, Chairperson
- Wukchumni Tribe, Mr. John Sartuche

After the preferred alternative is identified and Caltrans cultural resources staff issues a finding, Caltrans will have complied with 36 Code of Federal Regulations Part 800 2(c)(1-4), 800.4(d)(1), 800.11(d). Consultation with the Native Americans for cultural resources is ongoing through construction of the project (Section 106 of the National Historic Preservation Act of 1969, as amended).

As part of the public circulation period, the draft environmental impact report/environmental assessment was also made available for comment to all the individuals named above.

Other Facilities Consulted

A records search was also done at the Southern San Joaquin Valley Information Center at California State University, Bakersfield in May and June 2007. The following parties were also consulted: Tulare County; City of Exeter; City of Lindsay; Courthouse Gallery and Museum Association; State Historic Preservation Office; and California State University, Fresno Department of Geology concerning potential paleontological resources.

Agencies Contacted During Preparation of the Technical Studies

As part of the preparation of technical studies, the following local agencies were contacted about land use issues, emergency services, traffic circulation, and schools.

- California Highway Patrol
- California Rural Legal Service
- Lindsay Police Department
- Exeter Police Department
- Tulare County Planning Department
- Tulare County Sheriff Department
- Tulare County Assessors Department
- City of Lindsay Planning Department
- City of Exeter Planning Department
- Lindsay Unified School District
- Exeter Unified School District
- Natural Resources Conservation Services
- Tulare County Consolidated Ambulance Dispatch
- California Department of Forestry (Cal Fire)

As part of preliminary engineering, coordination was initiated with the San Joaquin Valley Railroad and the Public Utilities Commission on about September 21, 2004. The California Public Utilities Commission does not approve of at-grade railroad crossings and the San Joaquin Valley Railroad prefers to eliminate as many at-grade crossings as possible. The design of the two proposed San Joaquin Valley Railroad overhead crossing structures will be reviewed by the railroad before construction.



Chapter 5 List of Preparers

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

Judy Aguilar-Luna, Project Manager. M.S., Criminology - L.E., California State University, Fresno; 12 years experience in environmental planning and approximately 10 years experience in Program/Project Management. Contribution: Project Management.

Allam Alhabaly, Transportation Engineer. B.S., California State University, Fresno, School of Engineering; 10 years of experience in environmental technical studies, with emphasis on noise studies. Contribution: Noise Reports.

Yeshi Amente, Transportation Engineer. B.S., California State University, Los Angeles, School of Engineering; 13 years of experience. Contribution: Caltrans Design Engineer.

Louis L. Birdwell, Associate Right of Way Agent. Bachelor of Business Administration, Texas Tech University; 25 years of right of way experience at Caltrans; 5 years of experience as a Land and Environmental Agent at Shell Oil Company; 6 years of experience with the U.S. Department of Agriculture, Agriculture Stabilization and Conservation Service. Contribution: Draft Relocation Studies.

Christopher Brewer, Associate Environmental Planner (Architectural History). M.A., Public Administration, California State University, Bakersfield; more than 30 years of experience in California history, cultural resource management, and architectural history. Contribution: Historic Resources Evaluation Report.

Jaimee Cornwell, Staff Augmentation Biologist. B.A. Biology, University of Montana; 10 years of biological experience. Contribution: Natural Environmental Study.

Rodrigo Cruz, Transportation Engineer. B.S. in Civil Engineering, Arawullo University Phillipines; 21 years of experience. Contribution: Caltrans Project Engineer.

Julie Dick Tex, Associate Environmental Planner. M.A., Social Work, California State University, Fresno; B.A., Anthropology, California State University, Fresno; 12 years of environmental coordinator experience. Contribution: Environmental Impact Report/ Environmental Assessment.

Rajeev Dwivedi, Associate Engineering Geologist. Ph.D., Environmental Engineering, Oklahoma State University, Stillwater; 19 years of environmental technical studies experience. Contribution: Water Quality Assessment Report.

- Tom Fisher, Central Region Hydraulics Engineer. B.S., Civil Engineering, California State University, San Jose; 21 years of hydraulic engineering experience. Contribution: Prepared Location Hydraulic Study and Floodplain Compliance.
- Marie (Terry) Goewert, Environmental Planner (Air Quality Specialist). B.S., Foods and Nutrition, Colorado State University; 13 years environmental compliance and 7 years environmental planning experience. Contribution: Air quality technical studies.
- Susan Greenwood, Associate Environmental Planner. B.S., Environmental Health Science, California State University, Fresno; 20 years environmental health, hazardous waste, and hazardous material management experience. Contribution: Initial Site Assessment for Hazardous Waste.
- Peter Hansen, Engineering Geologist, P.G. B.S., Geology, California State University, Fresno; 12 years of paleontology/geology experience. Contribution: Paleontological Studies.
- Lana Hadisudarmo, Assistant Project Manager. P.M.P., M.B.A., National University, Fresno; 12 years experience in Program/Project Management. Contribution: Program/Project Management.
- David Lanner, Associate Environmental Planner. B.F.A., Art, Utah State University; 14 years of cultural resources experience. Contribution: Historic Property Survey Report.
- Mandy Marine, Associate Environmental Planner/Native American Coordinator, Archaeologist. B.A., Anthropology, California State University, Fresno; more than 20 years of California archaeology experience. Contribution: Native American Coordination.
- G. William “Trais” Norris, III, Senior Environmental Planner. B.S., Urban and Regional Planning, California State Polytechnic University, Pomona; 11 years of land use, housing, redevelopment, and environmental planning experience. Contribution: Environmental Manager, Branch Chief, Sierra Pacific Environmental Analysis Branch.
- Gloria Ramirez, Landscape Associate. M.A., Landscape Architecture, University of California, Berkeley; B.A., Landscape Architecture, University of California,

Berkeley; 10 years landscape associate experience. Contribution: Visual Impact Assessment

Philip Vallejo, Associate Environmental Planner (Architectural History) B.A. California State University. Fresno, 8 years of cultural resource experience. Contribution: Assisted with Historic Resources Evaluation Report.



Appendix A California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

Supporting documentation of all California Environmental Quality Act checklist determinations is provided in Chapter 2 of this document. Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Except for noise, discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 2. Noise impacts under the California Environmental Quality Act are discussed in Chapter 3.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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I. AESTHETICS: Would the project:

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

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

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

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

IV. BIOLOGICAL RESOURCES: Would the project:

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

V. CULTURAL RESOURCES: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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?

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

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

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

VII. GREENHOUSE GAS EMISSIONS: Would the project:

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

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

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

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

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

IX. HYDROLOGY AND WATER QUALITY: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Result in inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

X. LAND USE AND PLANNING: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XI. MINERAL RESOURCES: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XII. NOISE: Would the project result in:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

XIII. POPULATION AND HOUSING: Would the project:

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

XIV. PUBLIC SERVICES:

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

XV. RECREATION:

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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XVI. TRANSPORTATION/TRAFFIC: Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Result in inadequate emergency access?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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"/>
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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"/>
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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"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Comply with federal, state, and local statutes and regulations related to solid waste?

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

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

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

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



Appendix B Resources Relative to the Requirements of Section 4(f)

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 under 23 United States Code 327.

Introduction

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of a historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if the following applies:

- No prudent and feasible alternative to using that land exists.
 - The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.
- Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Department of Agriculture and the Department of Housing and Urban Development in developing transportation projects and programs that use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

This section of the document discusses parks, recreational facilities, wildlife refuges and historic properties found within or adjacent to the project area that do not trigger Section 4(f) protection because 1) they are not publicly owned; 2) they are not open to the public; 3) they are not eligible historic properties; 4) the project does not permanently use the property and does not hinder the preservation of the property; or 5) the proximity impacts do not result in constructive use.

Resources Evaluated

This evaluation considered publicly owned recreational resources within 0.5 mile of the project site. Although no qualifying wildlife and waterfowl refuges are within 0.5 mile of the project area, two schools are present that allow the public access to their ball fields and track. Also present within 0.5 mile is a city park and historic properties.

Schools

Exeter High School, 505 Rocky Hill Drive, Exeter, has an athletic park on the southwest corner of State Route 65 and Rocky Hill Drive west of N. Gill Road. Because the project would avoid the school and would not affect this resource, Section 4(f) provisions are not triggered.

Jefferson Elementary School, 333 Westwood, Lindsay, has open ball fields along Hermosa Avenue east of the project beginning. Because the project would avoid the school and would not affect this resource, Section 4(f) provisions are not triggered.

Parks

Dobson Field is a recreational park available for rent and owned by the City of Exeter. The park is on Rocky Hill Drive west of N. Gill Road. Because the project would avoid the park and would not affect this resource, Section 4(f) provisions are not triggered.

Trails

Currently there are no bicycle facilities on Spruce Avenue (Road 204) or the existing State Route 65. Established bicycle paths, however, exist within the city limits of Exeter and Lindsay, but none are within 0.5 mile of the project limits. Because the project would avoid the bicycle paths and would not affect this resource, Section 4(f) provisions are not triggered.

For the future, however, Tulare County has developed a Regional Bicycle Transportation Plan that includes two long-term bicycle path projects east of Exeter on Rocky Hill Drive (Avenue 260). The first project begins at the city limits and ends on Spruce Avenue (Road 204); the second project begins at Spruce Avenue (Road 204) and ends at Yokohl Valley Road to the east. Because the bicycle path would intersect with the project in Phase 4, the path would be evaluated under the provisions of Section 4(f) during the environmental revalidation and design phase of the project.

Historic Properties

Qualified Caltrans staff (see Section 1.8) formally evaluated 74 architectural properties identified within the cultural resources Area of Potential Effects. Of the 74 properties evaluated, Caltrans determined the following five properties were eligible for inclusion in the National Register of Historic Places:

1. Thomas A. Pogue House, 1600 Palm Drive, Exeter
2. W. Todd Dofflemeyer House, 2001 E. Marinette Avenue, Exeter
3. Bridge 46C-0239 carries Marinette Avenue across Friant-Kern Canal
4. Bridge 46C-0182 carries Spruce Avenue (Road 204) across Friant-Kern Canal
5. Friant-Kern Canal, at Spruce Avenue (Road 204) crossing

Section 4(f) provisions would apply to the above resources in the following manner:

- The project would avoid the Thomas A. Pogue House and would not affect this resource. Section 4(f) provisions, therefore, are not triggered.
- The project would avoid the W. Todd Dofflemeyer House and would not affect this resource. Section 4(f) provisions, therefore, are not triggered.
- The project would avoid the Bridge 46C-0239 and would not affect this resource. Section 4(f) provisions, therefore, are not triggered.
- The project would avoid any use of Bridge 46C-0182 and would not have an effect on this resource. Section 4(f) provisions, therefore, are not triggered..
- Both build alternatives cannot avoid crossing the Friant-Kern Canal and new bridges would span the canal. Based on the determination of “no adverse effect” under the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Section 6009, Caltrans has determined the use of the historic property as a *de minimis* finding. Because all construction would occur on the outside canal banks, building new bridges would not modify the canal’s use nor diminish the integrity of design, materials, and workmanship of the historic structure. Building new bridges would include placing bridge abutments into the outside canal bank and using fill (dirt) to build up the outside of the canal banks to support the approaches to the bridges. Caltrans has submitted a letter to the State Historic Preservation Officer notifying the agency of Caltrans’ intent to adopt the *de minimis* finding.



Appendix C Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
P.O. Box 942873, MS-49
SACRAMENTO, CA 94273-0001
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TTY 711



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July 20, 2010

TITLE VI POLICY STATEMENT

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

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

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Charles Wahnnon, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353 or toll free 1-866-810-6346 (voice), TTY 711, fax (916) 324-1869, or via email: charles_wahnnon@dot.ca.gov.


CINDY MCKIM
Director

"Caltrans improves mobility across California"



Appendix D Summary of Relocation Benefits

California Department of Transportation Relocation Assistance Program

Declaration of Policy

“The purpose of this title is to establish a **uniform policy for fair and equitable treatment** of persons displaced as a result of federal and federally assisted programs in order that such persons **shall not suffer disproportionate injuries** as a result of programs designed for the benefit of the public as a whole.”

The Fifth Amendment to the U.S. Constitution states, “No Person shall . . . be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation.” The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations, Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

FAIR HOUSING

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This Act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require Caltrans to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized, and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state’s relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations, and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid

loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Department relocation advisor.

RELOCATION ASSISTANCE ADVISORY SERVICES

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use, so long as they are legally present in the United States. Caltrans will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are “decent, safe and sanitary.” Nonresidential displacees will receive information on comparable properties for lease or purchase (For business, farm and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning Federal and State assisted housing programs, and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable “decent, safe and sanitary” replacement dwelling, available on the market, is offered to them by Caltrans.

RESIDENTIAL RELOCATION PAYMENTS

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

Moving Costs

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until Caltrans obtains control of the property in order to be eligible for relocation payments.

Purchase Differential

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 180 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property), may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. The maximum combination of these three supplemental payments that the owner-occupant can receive is \$22,500. If the total entitlement (without the moving payments) is in excess of \$22,500, the Last Resort Housing Program will be used (See the explanation of the Last Resort Housing Program below).

Rent Differential

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by Caltrans prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when Caltrans determines that the cost to rent a comparable “decent, safe and sanitary” replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the *Down Payment* section below. The maximum amount payable to any eligible tenant and any owner-occupant of less than 180 days, in addition to moving expenses, is \$5,250. If the total entitlement for rent supplement exceeds \$5,250, the Last Resort Housing Program will be used.

In order to receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe and sanitary” replacement dwelling within one year from the date Caltrans takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

Down Payment

The down payment option has been designed to aid owner-occupants of less than 180 days and tenants in legal occupancy prior to Caltrans’ initiation of negotiations. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250. The one-year eligibility period in which to purchase and occupy a “decent, safe and sanitary” replacement dwelling will apply.

Last Resort Housing

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the \$22,500 and \$5,250 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, Caltrans will, within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced;
- Specific arrangements needed to accommodate any family member(s) with special needs;
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family;
- Preferences in area of relocation;
- Location of employment or school.

NONRESIDENTIAL RELOCATION ASSISTANCE

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory

Assistance Program will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

Moving Expenses

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment and similar business-related property, including: dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items acquired in the Right of Way contract may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.
- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.
- Expenses related to searching for a new business site, up to \$2,500, for reasonable expenses actually incurred.

Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to \$10,000 for reasonable expenses actually incurred.

Fixed In Lieu Payment

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses which meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than \$1,000 or more than \$20,000.

ADDITIONAL INFORMATION

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, *except* for any Federal law providing local "Section 8" Housing Programs.

Any person, business, farm or nonprofit organization which has been refused a relocation payment by the Caltrans relocation advisor or believes that the payment(s) offered by the

agency are inadequate, may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwill that arises from the displacement for a public project. A list of ineligible expenses can be obtained from Caltrans Right of Way. California's law and the federal regulations covering relocation assistance provide that no payment shall be duplicated by other payments being made by the displacing agency.

The following links are to the Caltrans' Relocation Assistance brochures for residential relocation written in English and Spanish:

- http://www.dot.ca.gov/hq/row/pubs/residential_english.pdf
- http://www.dot.ca.gov/hq/row/pubs/residential_spanish.pdf

The following links are to the Caltrans' Relocation Assistance brochures for mobile homes written in English and Spanish:

- http://www.dot.ca.gov/hq/row/pubs/mobile_eng.pdf
- http://www.dot.ca.gov/hq/row/pubs/mobile_sp.pdf

The following links are to the Caltrans' Relocation Assistance brochures for businesses and/or farms written in English and Spanish:

- http://www.dot.ca.gov/hq/row/pubs/business_farm.pdf
- http://www.dot.ca.gov/hq/row/pubs/business_sp.pdf

Appendix E State Office of Historic Preservation Concurrence Letters

2004 Concurrence letter from the State Office of Historic Preservation,
page 1 of 2

STATE OF CALIFORNIA – THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

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

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November 12, 2004

REPLY TO: FHWA041025A

Lynne Farone, Chief
Central California Cultural Resources Branch
California Department of Transportation, District 6
2015 Shields Avenue, Suite A-100
FRESNO CA 93726-5428

Re: State Route 65, Tulare Expressway Project, Exeter to Lindsay, Tulare County.

Dear Ms. Farone:

Thank you for submitting to our office your October 6, 2004 letter and Historic Property Survey Report (HPSR) regarding the proposed Tulare Expressway Project on State Route (SR) 65 from the City of Exeter to the City of Lindsay, both in Tulare County. The realignment would occur on SR 65 from Hermosa Street in Exeter to State Route 198 in Lindsay. The California Department of Transportation (Caltrans) is considering three (3) alternatives and a No Build Alternative for the project. Detailed descriptions of the Alternatives (1, 2, and 3) are outlined on Pages 3 and 4 of the HPSR. The HPSR notes that an archeological resources record search conducted at the Southern San Joaquin Valley Information Center at California State University, Bakersfield, and a pedestrian survey by qualified archeologists revealed no known archeological properties within the project APE.

Pursuant to stipulation VIII.C.5. of the "Programmatic Agreement (PA) among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California" (PA), Caltrans is seeking my comments on its determination regarding the eligibility of seventy-four (74) architectural and engineering properties within the undertaking's APE for inclusion on the National Register of Historic Places (NRHP). A review of the submitted HPSR leads me to make the following comments regarding Caltrans' determination:

- For the purposes of this undertaking and this consultation only, the segments of the Friant-Kern Canal and its attendant bridges (46C-0239 and 46C-0182) located within the project APE are eligible for inclusion on the NRHP under Criteria A and C as established by 36 CFR 60.4.
- I concur with Caltrans' determination that the following properties are eligible for inclusion on the NRHP:

2004 Concurrence letter from the State Office of Historic Preservation,
page 2 of 2

1. Thomas A. Pogue House, 1600 Palm Drive, Exeter – Criteria B and C.
2. Dofflemeyer House - 2001 E. Marinette Avenue, Exeter – Criteria B and C.

The Thomas A. Pogue House has strong associations with Thomas A. Pogue, developer of the Rocky Hill Corporation, a major citrus, ranching, and packing company in Tulare County in the years spanning 1915 to 1954. The house is an outstanding example of a large, two-story Craftsman-style house that has retained most of the elements associated with its historic period of significance (1910 -1954). The Dofflemeyer House has strong associations with W. Todd Dofflemeyer, a University of California graduate and local farmer who pioneered the development of modern scientific management practices in the area's grape and citrus industry. Constructed in 1906, the house also is an excellent example of Prairie-style architecture with some Craftsman-style elements.

- I also concur with Caltrans' determination that the sixty-nine (60) remaining architectural properties located within the project APE are not eligible for inclusion on the NRHP.

Thank you again for seeking my comments on your project. If you have any questions, please contact staff historian Clarence Caesar by phone at (916) 653-8902, or by e-mail at ccaes@ohp.parkss.ca.gov.

Sincerely,



Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

2012 Concurrence letter from the State Office of Historic Preservation,
page 1 of 2

Millford Wayne Donaldson, FAIA
June 18, 2012,
Page 2

Area of Potential Effects (APE) for the project. Three architectural properties were identified within the APE that required formal evaluation. Pursuant to Stipulation VIII.C.5 of the Section 106 PA, Caltrans, as assigned by FHWA, is requesting your concurrence with the following eligibility determinations:

MAP REF #	PARCEL #	LOCATION	RESOURCE TYPE
1	136-110-003	1331 Rocky Hill Drive	Single-Family Residence/Farm
2	134-040-013	129 N. Gill Road	Single-Family Residence/Farm
3	134-040-056	1472 Rocky Hill Drive	Single-Family Residence

At this time Caltrans is only seeking your concurrence in accordance with Stipulation VIII.C.5. of the Section 106 PA regarding the identification and evaluation of the three properties not previously identified in the 2004 survey. We look forward to receiving your response within 30 days of receipt of this submittal.

As identified in the original 2004 HPSR Caltrans has determined that there are historic properties within the APE that may be affected by the undertaking, in accordance with Stipulation IX.B of the Section 106 PA. Consequently, once a preferred alternative is selected, Caltrans will apply the Criteria of Adverse Effect, and, as assigned by FHWA, will continue consultation with you pursuant to Stipulation X of the Section 106 PA.

If you have any questions or need additional information, please don't hesitate to contact myself or Caltrans cultural team for the project:

Jeanne Day Binning, Branch Chief (559) 445-5793; Jeanne_Binning@dot.ca.gov	Philip Vallejo, Architectural Historian (559) 445-5997; Philip_Vallejo@dot.ca.gov	David Lanner, Archaeologist (559) 445-6258 David_Lanner@dot.ca.gov
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Sincerely,



Jeanne Day Binning
Branch Chief, Central California Cultural Resources Branch
California Department of Transportation, District 06

Enclosure: *Historical Property Survey Report for the Lairds Corner Rehabilitation Project on State Route 190 in Tulare County, California; 06-TUL-190; PM 0.0/8.0; EA 06 46150; Project ID 0600020148.*

Cc: Todd Jaffke, HQ

Appendix F Minimization and/or Mitigation Summary

Minimization and mitigation measures listed are proposed recommendations only and are in line with the planning level analysis presented in this document.

Relocations
At the time of acquisition, when relocation would become necessary, all activities would then be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended (See Appendix D). Last Resort Housing Payments may be made available to eligible residential displaces.
Utilities/Emergency Services
After a preferred alternative is identified and during the design phase of the project, a more detailed study would be conducted to determine the necessary relocation of utilities. Caltrans would meet with the affected utilities to coordinate the details for relocations and easements to avoid or minimize any interruption in service.
Traffic and Transportation/Pedestrian and Bicycle Facilities
<p><i>Traffic and Transportation</i> – During construction, a traffic Management Plan would be developed to accommodate local traffic patterns and reduce delay, congestion, and accidents. Some Traffic Management Plan activities include notifying the public of construction activities via media outlets, using Changeable Message Signs, construction strategies, use of the Central Valley Traffic Management Center, which reduces congestion by monitoring traffic and informing the public via media outlets, such as radio and television.</p> <p>Traffic delays are expected to be minimal because most of the build alternatives would be constructed on new alignments. By building the proposed project in construction phases and rerouting traffic to local roads, disruption to local and regional traffic would be minimized with both build alternatives.</p> <p><i>Pedestrian Facilities</i> – Curb ramps that are compliant with Americans with Disability Act requirements would be provided at all improved intersections or new local road intersections, as well as at proposed ramp intersections as applicable.</p> <p><i>Bicycle Facilities</i> – Caltrans met with representatives from the Tulare Council of Governments in September 2011 regarding the proposed bike paths. It was agreed the project would incorporate the proposed bike lanes on Avenue 280 (Rocky Hill Drive) into the local road improvements and intersection proposals.</p>

Visual/Aesthetics

Visual impacts can be managed by avoidance, minimization and /or rectification. To manage the proposed impacts Management Objectives and Management Recommendations must relate to the adverse visual impacts associated with the project. The following management objectives and recommendations are intended to manage and lessen impacts to the visual quality of the proposed project:

1. **Management Objective:** Conserve visual unity and intactness for all viewers.
Management recommendations are as follows:
 - a) Existing mature vegetation currently providing a landscape buffer from the highway for rural residents should be preserved where possible or replace.
 - b) Existing palms should be protected in place where possible; if not, they should be relocated and incorporated into a highway planting plan.
 - c) Functional highway planting should be included to reduce the visual scale of the new structures and to soften their appearance.
 - d) For landform continuity and to increase the potential of slope re-vegetation and stabilization, slopes should be 1:4 or flatter and should include rounding top and bottom of slopes.
2. **Management Objective:** Minimize loss of intactness resulting from added structures.
Management recommendations are as follows:
 - a) Functional planting, as recommended above will reduce the visual scale of the new structures and soften their appearance.
 - b) In addition, architectural treatments, such as color and/or textures applied to vertical surfaces or structures should relate to other structures within the region. These aesthetic threatens should be coordinated through the Landscape Architecture Unit and the Bridge Aesthetics Unit (in Caltrans Headquarters) throughout the various phases of the project.

Although the implementation of management recommendations may not eliminate all the visual impacts, it will reduce them lessening the substantial changes in the overall visual quality.

Cultural Resources

Architectural Resources – Although the build alternatives avoid any effect to the two historic homes within the project limits, landscaping is recommended to minimize any visual impacts.

Cultural Resources/Archaeology - If cultural materials were discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the nature and significance of the find.

If human remains were discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the coroner recognizes the human remains to be those of a Native American, or has reason to believe that the remains are those of a Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. Pursuant to Public Resources Code Section 5097.98, the Native American Heritage Commission would then identify a Most Likely Descendent. The District 6 Environmental Branch will be informed of the discovery immediately by personnel responsible for the exposure. The Native American Heritage Commission will facilitate discussions with the property owner, Caltrans, and the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

Water Quality
<p>This project is covered by the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) permit Number CAS000003 (SWRCB No. 99-06-DWQ). Under this permit the required Statewide Storm Water Management Plan directs that potential impacts to water quality (erosion, discharges of hazardous material, disruption of natural drainage patterns, etc.) be addressed in the planning, design, and construction phases.</p> <p>Caltrans would require the contractor to develop an acceptable Storm Water Pollution Prevention Plan containing best management practices (BMPs) that have demonstrated effectiveness at reducing storm water pollution, and addresses all construction-related activities, equipment, and materials that have the potential to affect water quality.</p>
Paleontology
<p>If project construction plans change to include major deep excavation (beyond six feet), or if paleontological resources are discovered at the job site, the Caltrans paleontological coordinator would be notified immediately and the project plans would be reevaluated, if necessary by the paleontological coordinator and a principal paleontologist. Mitigation measures that follow Caltrans Standard Environmental Reference Chapter 8 – Paleontology (Caltrans, 2011 a) would be used.</p> <p>Project construction personnel would comply with Caltrans Standard Specification 14-7 Paleontological Resources.</p> <ol style="list-style-type: none"> 1. Stop all work within a 60-foot radius of the discovery 2. Protect the area 3. Notify the resident engineer <p>Caltrans will investigate and modify the dimensions of the protected area if necessary. Paleontological resources will not be removed from the job site. Work will not resume within the specified radius of the discovery until authorized.</p>
Hazardous Waste or Materials
<p>Caltrans' Standard Specifications (SSPs) and Non-Standard Specifications (nSSPs) pertaining to hazardous waste would be provided during the Project Specifications and Estimates (PS&E) phase, prior to construction of the project.</p>
Air Quality
<p>The paved shoulders in the proposed project should minimize particulate matter (PM₁₀ emissions) and road dust.</p> <p>This project would be subject to the San Joaquin Valley Air Pollution Control District Rule 9510 (Indirect Source Review Rule), which applies to construction equipment emissions for transportation projects that exceed 2.0 tons of either PM₁₀ and/or NO_x air pollutants. Mitigation options include using a construction fleet that is “cleaner than the California state average” and/or in the form of fees paid to the District. The contractor will be responsible for the Indirect Source Review Air Impact Analysis and any applicable fees.</p> <p>Caltrans Standard Specifications pertaining to dust control and dust palliative requirement is a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1.01F “Air Pollution Control” and Section 10 “Dust Control” require the contractor to comply with the San Joaquin Valley Air Pollution Control District rules, ordinances, and regulations.</p>

Biological Resources					
Waters of the U.S.					
<p>Best management practices would be included so that the smallest practical footprint would be in place to minimize temporary, indirect, and permanent impacts to jurisdictional Waters of the U.S. Work in Lewis Creek will be limited to the dry season.</p> <p>Proposed mitigation for the potential loss of jurisdictional aquatic resources will be achieved at a 1 acre to 1 acre (1:1) ratio for all permanent impacts. Mitigation would include preservation, enhancement and/or restoration of aquatic resources at an off-site U.S. Army Corps of Engineers-approved mitigation bank via an In Lieu Fee Agreement. Table F.1 shows a summary of the compensatory mitigation proposed for permanent impacts resulting from the project.</p>					
Table F.1 Mitigation Proposed for Impacts to Waters of the U.S.					
Type of Impact	Area of Impacts (acres)		Compensation Ratio	Area of Mitigation (acres)	
	Alternative 1	Alternative 2		Alternative 1	Alternative 2
Permanent	0.11	0.15	1 acre to 1 acre	0.11	0.15
TOTAL	0.11	0.15		0.11	0.15
Animal Species					
<p><u>American badger</u>: A pre-construction survey for the American badger will be conducted within the BSA. If an active badger den is detected, minimization efforts will be coordinated with the California Department of Fish and Game and may include a no work buffer zone around an active den and/or a qualified biologist will monitor an active den during construction. Work may be temporarily suspended if denning badgers are found to occur within the biological study area.</p> <p><u>Migratory Bird and Bat Protection</u>: Based on recommendation of the memorandum issued on August 7, 2012, surveys for bird and bat protection will be employed prior to the demolition of any structures within the proposed or existing right-of-way. Exclusionary measures, or specific work windows, will then be implemented for the demolition of existing structures where wildfire species are observed.</p>					
Threatened and Endangered Species					
<p><u>Vernal Pool fairy shrimp</u>: No avoidance, minimization or mitigation measures are proposed for Vernal Pool fairy shrimp.</p> <p><u>Valley Elderberry Longhorn beetle</u>: An environmentally sensitive area (ESA) would be established about 130 feet from the elderberry shrubs to avoid unplanned, accidental, or construction –related impacts.</p> <p><u>Swainson’s hawk</u>: A pre-construction survey for Swainson’s hawk will be conducted within the biological study area and within 0.5 mile radius around the biological study area. If an active Swainson’s hawk nest is located, minimization efforts will be coordinated with the California Department of Fish and Game (CDFG) and may include a “no work” buffer zone around an active nest and/or a qualified biologist will monitor an active nest during the construction activities to ensure that no interference with the hawks breeding activities will occur. In addition, a standard special provision (SSP) for bird protection will be included in the construction contract and would minimize impacts to this special-status species.</p>					

Threatened and Endangered Species (continued)

San Joaquin kit fox: A pre-construction survey and a standard special provision (SSP) for the San Joaquin kit fox would be included in the construction contract and would minimize impacts to this special-status species. Construction activities would be conducted during daytime hours to avoid potential disruption of San Joaquin kit fox nocturnal (night-time) activities.

The mitigation measures proposed below would be discussed with and approved by the U.S. Fish and Wildlife Service during the Section 7 formal consultation.

Pre-construction educational meeting

An employee education program regarding the San Joaquin kit fox would be conducted prior to the start of construction by a Caltrans biologist or other qualified biologist.

Protection provisions

San Joaquin kit fox protection provisions would be included in the Construction Contract Special Provisions and all persons on the project site would be required to adhere to these provisions.

Construction monitoring

A Caltrans biologist or other qualified biologist would periodically monitor the construction of the project based on specific conditions determined during Section 7 formal consultation with the U.S. Fish and Wildlife Service.

Land acquisition or conservation easement

Agricultural lands that will be permanently affected within the project area would be mitigated for at a 1.1:1 acre ratio and temporary impacts would be compensated for at a 0.5:1 acre ratio. Table F.12 shows the estimated amount of permanent and temporary impacts for the two build alternatives and the potential mitigation acreage.

Table F.2 San Joaquin kit fox Mitigation Compensation

Type of Impact	Area of Impacts (acres)		Compensation Ratio	Area of Mitigation (acres)	
	Alternative 1	Alternative 2		Alternative 1	Alternative 2
Permanent	132.93	120.55	1.1 to 1 acres	146.22	132.62
Temporary	240.20	249.93	0.5 to 1 acre	120.10	124.97
TOTAL	373.13	370.48		266.32	257.58

Invasive Species

Only clean fill would be imported to the project site. Any excess soil that cannot remain on-site would be disposed of in a manner that will not spread invasive plants and their seeds. If this is an extensive amount of fill, it can be modified to only include the top six inches of soil. Care would be taken to avoid including any species that occur on the California Invasive Plant Council's *Invasive Plant Inventory* in the Caltrans erosion control seed mix or landscaping plans for the project.



Appendix G Natural Resources Conservation Services-CPA 1006

U.S. DEPARTMENT OF AGRICULTURE Natural Resources Conservation Service		NRCS-CPA-106 (Rev. 1-91)	
FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS			
PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 3/12/12	4. Sheet 1 of 1
1. Name of Project Tulare 65 Expressway		5. Federal Agency Involved Caltrans/FHWA	
2. Type of Project Highway project		6. County and State Tulare, CA	
PART II (To be completed by NRCS)		1. Date Request Received by NRCS Apr 14 2012	2. Person Completing Form Draley Pannett
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated Average Farm Size 625,080 240	
5. Major Crop(s) Citrus, Cotton, Alalfa	6. Farmable Land in Government Jurisdiction Acres: 638,789 % 20.7	7. Amount of Farmland As Defined in FPPA Acres: 967,965 % 28.1	
8. Name of Land Evaluation System Used California State System	9. Name of Local Site Assessment System None	10. Date Land Evaluation Returned by NRCS 3/20/12	
PART III (To be completed by Federal Agency)		Alternative Corridor For Segment	
	Corridor A	Corridor B	Corridor C
A. Total Acres To Be Converted Directly	289.0	290.1	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	30.6	30.5	
C. Total Acres In Corridor	319.6	320.6	
PART IV (To be completed by NRCS) Land Evaluation Information			
A. Total Acres Prime And Unique Farmland	62.64	62.64	
B. Total Acres Statewide And Local Important Farmland	254.42	254.42	
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	.000365	.000365	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		N/A	N/A
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)	79	79	
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))		Maximum Points	
1. Area in Nonurban Use	15	14	14
2. Perimeter in Nonurban Use	10	10	10
3. Percent Of Corridor Being Farmed	20	17	17
4. Protection Provided By State And Local Government	20	10	10
5. Size of Present Farm Unit Compared To Average	10	0	0
6. Creation Of Nonfarmable Farmland	25	0	0
7. Availability Of Farm Support Services	5	4	4
8. On-Farm Investments	20	16	16
9. Effects Of Conversion On Farm Support Services	25	0	0
10. Compatibility With Existing Agricultural Use	10	5	5
TOTAL CORRIDOR ASSESSMENT POINTS	160	76	76
PART VII (To be completed by Federal Agency)			
Relative Value Of Farmland (From Part V)	100	79	79
Total Corridor Assessment (From Part VI above or a local site assessment)	160	76	76
TOTAL POINTS (Total of above 2 lines)	260	155	155
1. Corridor Selected: preferred alternative not identified yet	2. Total Acres of Farmlands to be Converted by Project: 320-321	3. Date Of Selection pending	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
5. Reason For Selection: conversion of farmland total points are equal for both build alternatives			
Signature of Person Completing this Part: Jalee Jay		DATE 8-13-12	
NOTE: Complete a form for each segment with more than one Alternate Corridor			



Appendix H

Census Tracts Data

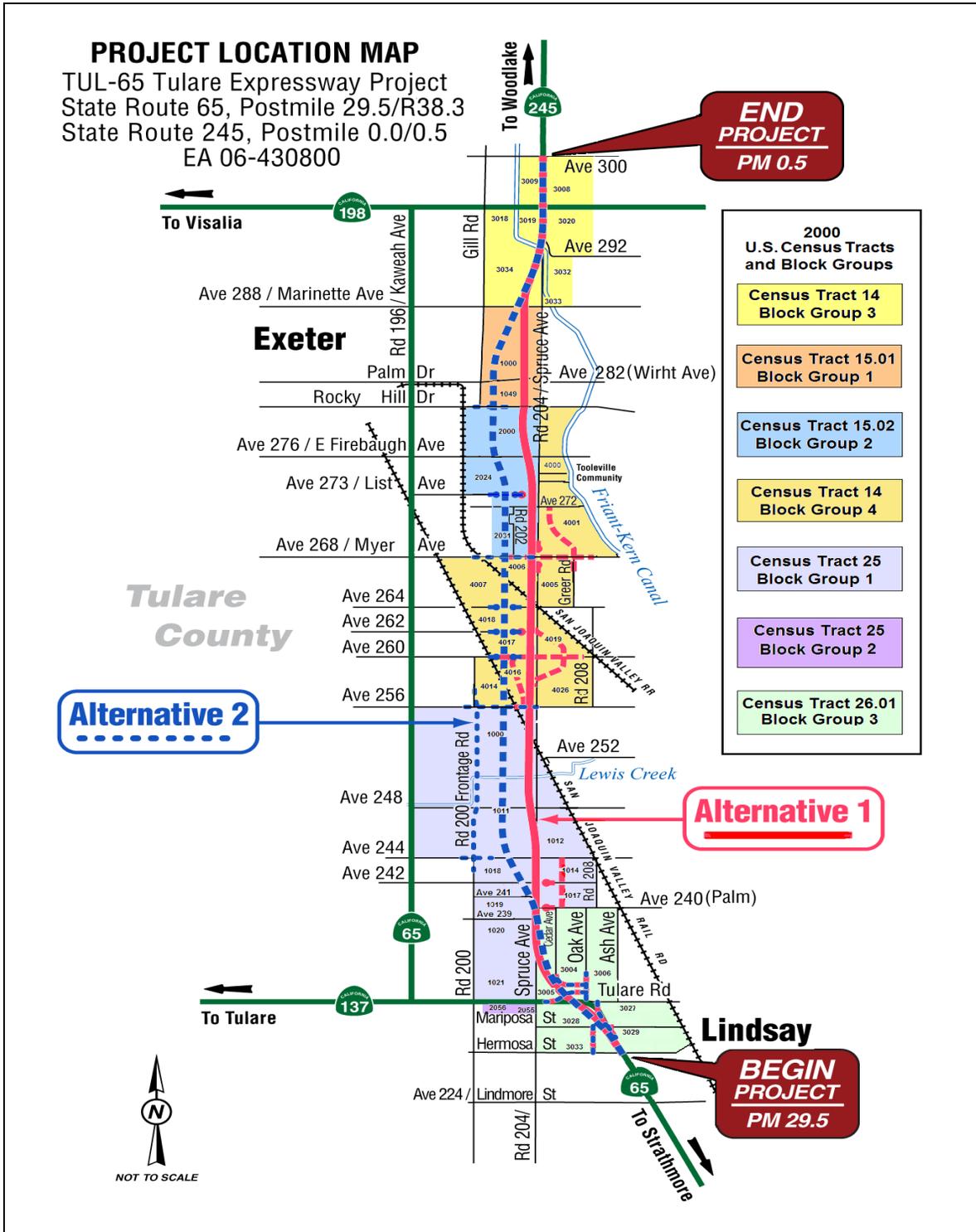


Figure I-1 Project Corridor Census Tracts

Tables H.1 provides ethnic/racial information on the population within the project corridor based on the 2000 US Census Tract Block Groups.

Table H.1 Block Groups Within Project Corridor

Census Tract	Block Group	Block	Total	White/Caucasian	Black/African American	American Indian/Native American	Asian	Pacific Islander	Hispanic	2 or more races	
14	3	3008	28	20	0	0	4	0	0	2	
		3009	4	4	0	0	0	0	2	0	
		3018	24	24	0	0	0	0	0	0	
		3019	0	0	0	0	0	0	0	0	
		3020	0	0	0	0	0	0	0	0	
		3032	0	0	0	0	0	0	0	0	
		3033	0	0	0	0	0	0	0	0	
	3034	34	30	0	0	0	0	0	4	0	
	4	4000	126	50	0	0	0	0	0	72	4
		4001	436	118	2	10	0	0	0	304	2
		4005	0	0	0	0	0	0	0	0	0
		4006	4	4	0	0	0	0	0	0	0
		4007	8	8	0	0	0	0	0	0	0
		4014	30	24	0	0	0	0	0	4	2
		4016	40	4	0	0	0	0	0	36	0
		4017	22	22	0	0	0	0	0	0	0
		4018	58	50	0	2	0	0	0	6	0
4019		14	14	0	0	0	0	0	0	0	
4026	130	62	0	6	0	0	0	58	4		
15.01	1	1000	42	40	0	0	0	0	2	0	
		1049	72	58	0	12	2	0	0	0	
15.02	2	2000	6	2	2	0	0	0	0	2	
		2024	48	32	0	0	0	0	16	0	
		2031	8	2	0	0	0	0	2	4	
25	1	1000	68	36	0	0	0	0	32	0	
		1011	16	0	0	0	0	0	16	0	
		1012	34	16	0	0	0	0	18	0	
		1014	28	0	0	0	0	0	28	0	
		1017	24	0	0	0	0	0	24	0	
		1018	18	16	0	0	0	0	0	2	
		1019	14	6	0	0	0	0	8	0	
		1020	66	54	0	0	0	0	12	0	
	1021	112	54	0	0	0	0	0	58	0	
	2	2055	0	0	0	0	0	0	0	0	0
2056		22	6	0	0	0	0	0	14	2	
26.01	3	3004	78	30	0	0	0	0	48	0	
		3005	22	22	0	0	0	0	0	0	
		3006	0	0	0	0	0	0	0	0	
		3027	0	0	0	0	0	0	0	0	
		3028	4	4	0	0	0	0	0	0	
		3029	4	2	0	0	0	0	0	2	0
		3033	0	0	0	0	0	0	0	0	0
TOTALS			1644	814	4	30	6	0	766	24	
Percentage of Total				49.5	0.2	1.8	0.4	0.0	46.6	1.5	

Appendix I Air Conformity Concurrence

Concurrence e-mail from the Environmental Protection Agency, page 1 of 2.



OConnor.Karina@epamail.epa.gov
01/07/2010 02:37 PM

To Terry Goewert <terry_goewert@dot.ca.gov>
cc Cari Anderson <cari@caconsulting.org>, Jason Paukovits <jason.paukovits@isa-assoc.com>, Kristine Cai <kcai@fresnocog.org>, Mike Bitner
bcc
Subject Re: SJV IAC MEMO: Hot-spot assessment, TUL-65 Tulare Expressway 2-Lane Project, EA-06-43080, a 6005 Environmental Assessment

EPA concurs that this is not a project of air quality concern.

-----Terry Goewert <terry_goewert@dot.ca.gov> wrote: -----

To: Cari Anderson <cari@caconsulting.org>, Jason Paukovits <jason.paukovits@isa-assoc.com>, Kristine Cai <kcai@fresnocog.org>, Mike Bitner <mbitner@fresnocog.org>, Lauren Dawson <ldawson@fresnocog.org>, Renee DeVere <rdevere@fresnocog.org>, Vincent Liu <vliu@kerncog.org>, Rob Ball <rball@kerncog.org>, "Marilyn J. Beardslee" <mbeardslee@kerncog.org>, Joseph Stramaglia <jstramaglia@kerncog.org>, Raquel Pacheco <rpacheco@kerncog.org>, Rachel Audino <Rachel.Audino@co.kings.ca.us>, Bruce Abanathie <Bruce.Abanathie@co.kings.ca.us>, Derek Winning <derek@maderact.org>, Richard Poythress <richard@maderact.org>, Matt Fell <Matt.Fell@mcagov.org>, Terri Lewis <Terri.Lewis@mcagov.org>, Tanisha Taylor <Taylor@sjcog.org>, Wil Ridder <ridder@sjcog.org>, Sam Kaur <Kaur@sjcog.org>, Carlos Yamzon <cyamzon@stancog.org>, Jim Schoeffling <jschoeffling@stancog.org>, Scott Phillips <swphilips@stancog.org>, Elizabeth Wright <EWright@co.tulare.ca.us>, Mark Hays <MAHays@co.tulare.ca.us>, Christine Chavez <chchavez@co.tulare.ca.us>, Ben Giuliani <BGiuliani@co.tulare.ca.us>, Eddie Wendt <Ewendt@co.tulare.ca.us>, Dan Barber <daniel.barber@valleyair.org>, Katy Linebach <Katy.Linebach@valleyair.org>, Lucinda Roth <Lucinda.Roth@valleyair.org>, Jeff Lindberg <jlindber@arb.ca.gov>, Dennis Wade <dwade@arb.ca.gov>, Jon Taylor <jtaylor@arb.ca.gov>, Mike Brady <Mike_Brady@dot.ca.gov>, Abhijit Bagde <abhijit_bagde@dot.ca.gov>, Muhaned Aljabiry <Muhaned.Aljabiry@dot.ca.gov>, Heidi Andrade <heidi_andrade@dot.ca.gov>, Steve Curti <steve_curti@dot.ca.gov>, Ken Romero <ken_j_romero@dot.ca.gov>, Terry Goewert <Terry_Goewert@dot.ca.gov>, Sharri Bender Ehlert <sharri_bender_ehlert@dot.ca.gov>, Pat Robledo <pat_robledo@dot.ca.gov>, Sinaren Pheng <sinaren_pheng@dot.ca.gov>, Ken Baxter <ken_baxter@dot.ca.gov>, Doris Lo/R9/USEPA/US@EPA, Karina OConnor/R9/USEPA/US@EPA, Frances Wicher/R9/USEPA/US@EPA, Scott Carson <Scott.Carson@dot.gov>, Joseph Vaughn <Joseph.Vaughn@dot.gov>, Steve Luxenberg <steve.luxenberg@dot.gov>, Ted Matley <Ted.Matley@fta.dot.gov>, Dennis Jacobs <dennis_jacobs@dot.ca.gov>, Lima Huy <Lima_huy@dot.ca.gov>, La Nae Van Valen <la.nae.van.valen@dot.ca.gov>, Garth Hopkins <garth.hopkins@dot.ca.gov>, Jim Perrault <james.perrault@dot.ca.gov>, Kim Kloeb <kkloeb@sjcog.org>, Arvinder Bajwa <arvinder_bajwa@dot.ca.gov>, Tom Dumas <tom_dumas@dot.ca.gov>
From: Terry Goewert <terry_goewert@dot.ca.gov>
Date: 12/28/2009 11:49AM
cc: Andy Chesley <achesley@sjcog.org>, Vince Harris <VHarris@StanCOG.org>, Dana Cowell <cowell@sjcog.org>, Jesse B Brown <Jesse.Brown@mcagov.org>, Marjorie Kirm <Marjie.Kirm@mcagov.org>, Patricia Taylor <patricia@maderact.org>, Ronald E Brummett <RBrummett@kerncog.org>, Ted Smalley <tsmalley@co.tulare.ca.us>, Terri King <tking@co.kings.ca.us>, Tony Boren <tboren@fresnocog.org>, Barbara Steck <bjsteck@fresnocog.org>, Elizabeth Wright <EWright@co.tulare.ca.us>, Robert Phipps <rhipps@kerncog.org>
Subject: Re: SJV IAC MEMO: Hot-spot assessment, TUL-65 Tulare Expressway 2-Lane Project, EA-06-43080, a 6005 Environmental Assessment

Dear Interagency Consultation Partners,

Concurrence e-mail from the Environmental Protection Agency, page 2 of 2.

Caltrans is providing the attached PM10 and PM2.5 Hot-spot
Conformity
Assessment to construct a two-lane expressway on an existing
county road
in Tulare County near Lindsay.

The project environmental document is a 6005 Environmental
Assessment.
USEPA and FHWA concurrence is requested.

Interagency Consultation Partners are requested to concur that
the project
is not a Project of Air Quality Concern (POAQC) by replying to
all, by
5:00 p.m. by January 11, 2010. An interagency conference call
will be held
upon request.

Concurrence on this project is required to proceed with the
NEPA process.

Please contact me if you have any questions.

Hope all of you have a safe & happy holiday season.

(See attached file: 06-43080 Hot Spot Dec 2009.doc) (See
attached file: PM
2.5 Trends.pdf) (See attached file: PM 10 Trends.pdf)

Terry Goewert
Air Quality Specialist
Central Region Environmental Engineering
559.243.8152 phone
559.243.8215 fax

[attachment "06-43080 Hot Spot Dec 2009.doc" removed by Karina OConnor/R9/USEPA/US]
[attachment "PM 2.5 Trends.pdf" removed by Karina OConnor/R9/USEPA/US]
[attachment "PM 10 Trends.pdf" removed by Karina OConnor/R9/USEPA/US]

Concurrence e-mail from the Federal Highway Administration, page 1 of 2.



<Joseph.Vaughn@dot.gov>
01/12/2010 09:40 AM

To <terry_goewert@dot.ca.gov>, <cari@caconsulting.org>,
<mike_brady@dot.ca.gov>, <ken_romero@dot.ca.gov>,
<OConnor.Karina@epamail.epa.gov>

cc
bcc

Subject RE: SJV IAC MEMO: Hot-spot assessment, TUL-65 Tulare
Expressway 2-Lane Project, EA-06-43080, a 6005
Environmental Assessment

FHWA concurs that this is not a project of air quality concern.

Joseph Vaughn
Air Quality Specialist/MPO Coordinator
FHWA, CA Division
(916) 498-5346

-----Original Message-----

From: Terry Goewert [mailto:terry_goewert@dot.ca.gov]
Sent: Monday, December 28, 2009 11:49 AM
To: Cari Anderson; Jason Paukovits; Kristine Cai; Mike Bitner; Lauren
Dawson; Renee DeVere; Vincent Liu; Rob Ball; Marilyn J. Beardslee;
Joseph Stramaglia; Raquel Pacheco; Rachel Audino; Bruce Abanathie; Derek
Winning; Richard Poythress; Matt Fell; Terri Lewis; Tanisha Taylor; Wil
Ridder; Sam Kaur; Carlos Yamzon; Jim Schoeffling; Scott Phillips;
Elizabeth Wright; Mark Hays; Christine Chavez; Ben Giuliani; Eddie
Wendt; Dan Barber; Katy Linebach; Lucinda Roth; Jeff Lindberg; Dennis
Wade; Jon Taylor; Mike Brady; Abhijit Bagde; Muhaned Aljabiry; Heidi
Andrade; Steve Curti; Ken Romero; Terry Goewert; Sharri Bender Ehlert;
Pat Robledo; Sinaren Pheng; Ken Baxter; Doris Lo; Karina O'Connor;
Frances Wicher; Carson, Scott (FHWA); Vaughn, Joseph (FHWA); Luxenberg,
Steve (FHWA); Matley, Ted (FTA); Dennis Jacobs; Lima Huy; La Nae Van
Valen; Garth Hopkins; Jim Perrault; Kim Kloeb; Arvinder Bajwa; Tom Dumas
Cc: Andy Chesley; Vince Harris; Dana Cowell; Jesse B Brown; Marjorie
Kirn; Patricia Taylor; Ronald E Brummett; Ted Smalley; Terri King; Tony
Boren; Barbara Steck; Elizabeth Wright; Robert Phipps
Subject: Re: SJV IAC MEMO: Hot-spot assessment, TUL-65 Tulare Expressway
2-Lane Project, EA-06-43080, a 6005 Environmental Assessment

Dear Interagency Consultation Partners,

Caltrans is providing the attached PM10 and PM2.5 Hot-spot Conformity
Assessment to construct a two-lane expressway on an existing county
road
in Tulare County near Lindsay.

The project environmental document is a 6005 Environmental Assessment.
USEPA and FHWA concurrence is requested.

Interagency Consultation Partners are requested to concur that the
project
is not a Project of Air Quality Concern (POAQC) by replying to all, by
5:00 p.m. by January 11, 2010. An interagency conference call will be
held
upon request.

Concurrence on this project is required to proceed with the NEPA
process.

Concurrence e-mail from the Federal Highway Administration, page 2 of 2.

Please contact me if you have any questions.

Hope all of you have a safe & happy holiday season.

(See attached file: 06-43080 Hot Spot Dec 2009.doc) (See attached file:
PM
2.5 Trends.pdf) (See attached file: PM 10 Trends.pdf)

Terry Goewert
Air Quality Specialist
Central Region Environmental Engineering
559.243.8152 phone
559.243.8215 fax

Appendix J Memorandum for Demolition

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

*Flex your power!
Be energy efficient!*

To: JAVIER ALMAGUER 
Interim Acting Senior Biologist
District 6, Fresno, CA

Date: August 7, 2012

File: 06-43080

From: JAIMEE CORNWELL 
URS Staff Augmented Biologist
District 6, Fresno, CA

Subject: Tulare Expressway NES

Demolition to existing homes and barns is likely to occur during the process of, or as a result of, right-of-way acquisition. Surveys for bird and bat protection will be employed prior to the demolition of any structures within the proposed or existing right-of-way. Exclusionary measures, or specific work windows, will then be implemented for the demolition of existing structures where wildlife species are observed.

c: Julie Dick-Tex

Jaimee Cornwell / JKC / Tulare Expressway

"Caltrans improves mobility across California"



List of Technical Studies Bound Separately

- Draft Relocation Impact Report
- Updated Traffic Operational Analysis
- Visual Impact Assessment
- Historical Property Survey Report and Supplemental
- Location Hydraulic Study
- Water Quality Assessment Report
- Paleontological Evaluation Report
- Initial Site Assessment and addendum
- Air Quality Study Report
- Noise Study Report
- Natural Environment Study