

Wasco 4-Lane Project

Kern County, California

District 6-KER-46-KP 74.03/82.43 (PM 46.00/51.22)

06-418800

SCH# 2006021095

Initial Study with Mitigated Negative Declaration/ Environmental Assessment with Finding of No Significant Impact



Prepared by the
U.S. Department of Transportation
Federal Highway Administration
and the
State of California Department of Transportation

October 2006



General Information About This Document

What's in this document?

This document contains an Initial Study with Mitigated Negative Declaration and an Environmental Assessment with Finding of No Significant Impact, which examine the environmental effects of a proposed project on State Route 46 in Kern County.

The Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment was circulated for public review and comment from February 16, 2006 to April 7, 2006. Comments made on the circulated document and the corresponding Caltrans responses are shown in the Comments and Responses section of this document, Appendix I, which has been added since the circulated version. Elsewhere throughout this document, a vertical line in the margin indicates content changes made since the release of the earlier document.

What happens after this?

The proposed project has completed environmental compliance after the circulation of this document. When funding is approved, the California Department of Transportation and the Federal Highway Administration can design and construct all or part of this project.

For individuals with sensory disabilities, this document is available in Braille, 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: Juergen Vespermann, Southern Sierra Environmental Analysis Branch, 2015 E. Shields Avenue, Suite 100, Fresno, CA 93726-5308, phone (559) 243-8157 Voice, or use the California Relay Service TTY number 1-(800)-735-2929.

SCH# 2006021095
06-KER-46-KP 74.03/82.43
(PM 46.00/51.22)
06-418800

Widen State Route 46 to four lanes from the Jumper Avenue alignment to "J" Street (State Route 43-North)
(kilometer posts 74.03/82.43 [post miles 46.00/51.22]) in the City of Wasco in Kern County, California

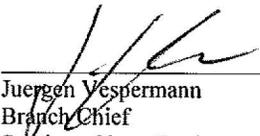
**INITIAL STUDY
with Mitigated Negative Declaration
/ENVIRONMENTAL ASSESSMENT
With Finding of No Significant Impact**

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

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

THE STATE OF CALIFORNIA
Department of Transportation

10/18/06
Date of Approval


Juergen Vespermann
Branch Chief
Southern Sierra Environmental Analysis Branch
Central Region Environmental Planning
California Department of Transportation

14 Nov 06
Date of Approval


Gene K. Fong
Division Administrator
Federal Highway Administration



**FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
for**

State Route 46

Wasco 4-Lane Project

between the Jumper Avenue alignment and J Street (post miles 46.00-51.22)
in the City of Wasco in Kern County, California

The Federal Highway Administration (FHWA) has determined that this project will not have any significant impact on the human environment. This finding of no significant impact is based on the attached Environmental Assessment, which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an environmental impact statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the environmental assessment.

14 Nov 06

DATE



For

Gene K. Fong

Division Administrator

Federal Highway Administration



Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

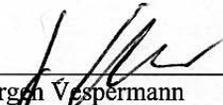
The California Department of Transportation (Caltrans) proposes to widen State Route 46 from a two-lane conventional highway to a four-lane conventional highway, four-lane expressway, or combination of the two between the Jumper Avenue alignment (along the west side of the Wasco State Prison) and "J" Street (State Route 43-North), from kilometer posts 74.03 to 82.43 (post miles 46.00 to 51.22), in the City of Wasco in Kern County, California.

Determination

Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons: The project would have no effect on industry, the economy, employment, agriculture and timber resources, cultural resources, water quality, air quality, sensitive noise receptors, topography, seismic exposure, erosion, energy, solid waste, land use, parklands, community facilities, utilities and emergency services, recreational facilities, community growth, neighborhoods, use of natural resources, hazardous waste materials, wetlands and other waters, fish and wildlife, vegetation, aesthetic resources, hydrology and floodplain, or educational facilities.

In addition, the proposed project would have no significant effect on paleontological resources, threatened or endangered species, businesses and housing because the following mitigation measures would reduce potential effects to insignificance:

- Potential impacts to paleontological resources would be mitigated through monitoring and salvage.
- Impacts to foraging habitat of the San Joaquin kit fox would be mitigated through habitat replacement.
- Residents and businesses displaced by the project would receive assistance through the Relocation Assistance Program.



Juergen Vespermann
Branch Chief
Southern Sierra Environmental Analysis Branch
Central Region Environmental Planning
California Department of Transportation

10-18-06
Date



Summary

The California Department of Transportation (Caltrans) and the Federal Highway Administration propose to widen an 8.40-kilometer (5.22-mile) segment of State Route 46 in the City of Wasco in Kern County, California. The proposed project would widen the existing highway from a two-lane conventional highway to a four-lane conventional highway, four-lane expressway, or combination of the two between the Jumper Avenue alignment (which runs along the west side of the Wasco State Prison) and “J” Street (State Route 43-North).

Based on environmental impacts and consideration of public comments, the following combination of alternatives has been selected as the overall Preferred Alternative through the project limits:

- For Segment 1, Alternative 1 between Magnolia Avenue and Scofield Avenue, transitioning to a rural expressway west of Scofield Avenue.
- For Segment 2, Alternative 9b.
- For Segment 3, Alternative 11a.

These alternatives fulfill the purpose and need of the project and have been determined to have the least environmental impacts.

The project would include constructing left-turn lanes and curb-gutter-sidewalk improvements, widening the existing Burlington Northern/Santa Fe Railroad underpass, improving drainage, and installing traffic signals at the intersections of State Route 46 with Griffith Avenue and “J” Street (State Route 43-North). Minor improvements to city streets would be required to detour traffic during construction at the Burlington Northern/Santa Fe Railroad underpass.

The purpose of widening State Route 46 is to increase the vehicular capacity of the highway to meet existing and projected traffic volumes and improve the safety and operation of the roadway. The community of Wasco has expressed concerns over capacity and safety on this route. The concerns arise from the existing narrow roadway, the lack of traffic signals at intersections, the high percentage of truck traffic, and the number of accidents.

The highway currently operates at a Level of Service “C” (minimal delays, flow stable) between the western end of the project and Scofield Avenue. This segment of the project area would improve to Level of Service “A” (no delays) through the year 2025 with the construction of a four-lane expressway. The remainder of the project between Scofield Avenue and “J” Street (State Route 43-North) currently operates at Level of Service “D” and without improvements would deteriorate to Level of Service E before the end of the 20-year design period. With the construction of a four-lane conventional highway, this portion of the highway would operate at Level of Service “A.”

Under the No-Build Alternative, the Level of Service for the project would deteriorate to Level of Service “E” (significant delays) during the 20-year design period. Traffic on State Route 46 within the project area is projected to increase from 11,385 average daily trips in 2007 to 19,280 average daily trips in 2027. Trucks compose between 35% and 42% of the traffic; buses and recreational vehicles, which make up 5% of the traffic by themselves, are included in the percentage of truck traffic. Anticipated growth in the community would increase the regional/local traffic conflicts. The afternoon peak hour Level of Service for five (29%) of the intersections within the project limits is projected to be “D” (minimal delays, flow becoming unstable) or worse in the 20-year design period.

Seventeen streets within the project limits intersect State Route 46. Safety analyses conducted over time by Caltrans indicate a trend toward accident concentrations at an increasing number of these intersections, ranging from five intersections (29%) in 1999 to nine intersections (53%) in 2004. A safety analysis conducted in 2005, from July 1, 2001, to June 30, 2004, indicated that the actual accident rate for 11 (65%) of the 17 intersections was above the statewide average for similar intersections. Accidents at these 11 intersections accounted for 65% of all of the accidents that occurred within the project area between 2001 and 2004.

The proposed project was divided into three segments for the development of project alternatives. Multiple alternatives were developed for each segment. Four-lane conventional highway and four-lane expressway alternatives are under consideration for Segment 1, between the Jumper Avenue alignment and Magnolia Avenue. Four-lane conventional highway alternatives are under consideration for Segment 2, between Magnolia Avenue and “F” Street (State Route 43-South), and for Segment 3, between “F” Street (State Route 43-South) and “J” Street (State Route 43-North).

Three alternatives (Alternatives 1, 2 and 3) are under consideration for Segment 1, a mostly rural area between the Jumper Avenue alignment and Magnolia Avenue.

Alternative 1 would construct a four-lane divided highway by widening the existing highway to the south 16.5 to 22.5 meters (54 to 74 feet). There would be a 9-meter (30-foot) unpaved center median. This alternative includes an asphalt concrete overlay of the existing two lanes, construction of two additional 3.6-meter (12-foot) lanes, 2.4-meter (8-foot) outside shoulders and 1.5-meter (5-foot) inside shoulders. Left-turn lanes would be constructed at Scofield, Leonard, Western and Magnolia avenues. The new lanes to be constructed as a part of this alternative would be constructed at the same elevation as the existing lanes. Culverts would be placed to drain the median. Side ditches would be constructed to handle drainage.

Alternative 2 would construct a four-lane divided expressway. This alternative would be the same as Alternative 1, except widen the existing highway to the south 27 to 33 meters (89 to 109 feet). The unpaved center median would be 18.6 meters (61 feet). This alternative also includes 3-meter (10-foot) outside shoulders.

Alternative 3 would also construct a four-lane expressway, but differs from the previous alternatives as follows: The existing highway would be widened to the south 41 meters (135 feet). Alternative 3 would reconstruct the existing two lanes. The new road would be raised about 1 meter (3 feet) to allow for the construction of a drainage system. Due to the height of the new lanes, this alternative would require acquiring additional right-of-way to accommodate a 1:6 side slope. This alternative would also construct frontage roads on both sides of the highway, where needed, to provide access to the adjoining parcels. Both frontage roads would include two 3.6-meter (12-foot) lanes and 1.2-meter (4-foot) shoulders.

Four alternatives (6b, 7b, 8b, and 9b) are being considered for Segment 2, a mostly commercial area between Magnolia Avenue and “F” Street (State Route 43-South). Some older homes are scattered throughout the eastern portion of Segment 2; the western portion of Segment 2 is in agricultural use.

In Segment 2, Alternative 6b would construct a four-lane conventional highway. The existing highway would be widened symmetrically 3 meters (10 feet). There would be a 3.6-meter (12-foot) raised center median, 3.6-meter (12-foot) left-turn lanes at selected intersections, four 3.6-meter (12-foot) lanes, 0.6-meter (2-foot) inside shoulders, 2.4-meter (8-foot) outside shoulders, and 1.5-meter (5-foot) sidewalks. A

traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue.

Alternative 7b would widen the existing highway symmetrically 4.2 meters (14 feet). There would be a 4.8-meter (16-foot) raised center median, including a 1.2-meter (4-foot) pedestrian refuge (an area where pedestrians can wait safely before continuing across the road), 3.6-meter (12-foot) left-turn lanes at selected intersections, four 3.6-meter (12-foot) lanes, 0.6-meter (2-foot) inside shoulders, 2.4-meter (8-foot) outside shoulders, and 1.5-meter (5-foot) sidewalks. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue.

Alternative 8b would widen the existing highway symmetrically 4.8 meters (16 feet). There would be a 3.6-meter (12-foot) raised center median, 3.6-meter (12-foot) left-turn lanes at selected intersections, four 3.6-meter (12-foot) lanes, 0.6-meter (2-foot) inside shoulders, 2.4-meter (8-foot) outside shoulders and 2.4-meter (8-foot) sidewalks. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue.

Alternative 9b would widen the existing highway symmetrically 8.5 meters (28 feet). There would be a 4.8-meter (16-foot) raised center median, including a 1.2-meter (4-foot) pedestrian refuge (an area where pedestrians can wait safely before continuing across the road), 3.6-meter (12-foot) left-turn lanes at selected intersections, four 3.6-meter (12-foot) lanes, 0.6-meter (2-foot) inside shoulders, 3-meter (10-foot) outside shoulders, and 3-meter (10-foot) sidewalks. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue.

Segment 3, an industrial area between “F” Street (State Route 43-South) and “J” Street (State Route 43-North), centers on an underpass that takes State Route 46 under the mainline of the Burlington Northern/Santa Fe Railroad tracks.

Construction of improvements in Segment 3 would require a detour. Traffic on State Route 46 would be rerouted along “F,” “J” and 6th streets. The intersections of 6th and “F” streets and 6th and “J” streets would be improved to accommodate truck turns. The Burlington Northern/Santa Fe Railroad crossing at 6th Street would also be reconstructed.

Two of the alternatives under consideration in Segment 3 (Alternatives 11a and 11b) include underpasses. Alternative 11a would widen the existing underpass to the south, and Alternative 11b would widen the underpass symmetrically. These two

alternatives would require construction of a new pump plant and expansion of an adjoining drainage basin. Instead of an underpass, a third alternative, Alternative 12a, would construct an overpass, shifted to the south. It would measure 72 meters (236 feet) at its widest point.

Each of the three alternatives in Segment 3 would have four 3.6-meter (12-foot) lanes, 2.4-meter (8-foot) outside shoulders, 0.6-meter (2-foot) inside shoulders and be divided by a 4.8-meter (16-foot) raised center median. A 3.6-meter (12-foot) left-turn lane would be constructed at “F” Street (State Route 43-South) and “J” Street (State Route 43-North). A 1.5-meter (5-foot) sidewalk would also be constructed. A traffic signal would be installed at the intersection of State Route 46 and “J” Street (State Route 43-North). The proposed project would match and conform to the existing roadway and would be designed to be compatible with improvements along the corridor.

Under the No-Build Alternative, State Route 46 would remain in its current condition. No improvements would be made to relieve congestion, improve safety or rehabilitate the pavement within the project area. Without the proposed improvements, accident rates are expected to increase and the Levels of Service are expected to decrease over time. Maintenance costs would also be expected to progressively increase over time. The No-Build Alternative would not allow the upgrades necessary to improve safety, such as construction of a median and left-turn lanes that help to control conflicting traffic movements.

Three areas of potential impact have been identified for the project: displacement of businesses and housing, the potential to encounter paleontological resources, and effects to the San Joaquin kit fox. Proposed mitigation measures would reduce the potential effects of the project to insignificance.

A summary of potential impacts for the build and no-build alternatives is provided in the following table.



Summary of Major Potential Impacts from Alternatives

Potential Impact		Segment 1			Segment 2				Segment 3			No-Build Alternative
		Alternative 1	Alternative 2	Alternative 3	Alternative 6b	Alternative 7b	Alternative 8b	Alternative 9b	Alternative 11a	Alternative 11b	Alternative 12a	
Land Use	Consistency with the Wasco General Plan	Yes	No	No	Yes				Yes			No
	Consistency with the Kern County General Plan	Yes			Yes				Yes			No
Growth		Transportation corridor improvements to match planned growth.			Transportation corridor improvements to match planned growth.				Transportation corridor improvements to match planned growth.			No highway improvements; decreased level of service and safety.
Community Character and Cohesion		Improves traffic safety and level of service.			Improves connection of area north of the highway to area south of the highway where major community facilities are located. Improves traffic and pedestrian safety.				Improves traffic safety and level of service.			No change
Relocation	Business displacements	1	2*	2*	0	0	5	5	2	3	2	No change
	Housing displacements	1	2	2	0	0	0	1	0	0	0	No change
	Utility service relocation	Utilities would require relocation.			Utilities would require relocation				Utilities would require relocation.			None required
Parking		No impact			Project could remove as many as 57 stalls.			Project could remove as many as 84 stalls.	No impact			No change
Utilities/Emergency Services		Utilities would require relocation; emergency vehicles given priority during construction; emergency response times should be improved.			Utilities would require relocation; emergency vehicles given priority during construction; emergency response times should be improved.				Utilities would require relocation; emergency vehicles given priority during construction; emergency response times should be improved. Detour required around the railroad underpass during construction.			Increased congestion over time might delay emergency vehicles.
Traffic and Transportation/ Pedestrian and Bicycle Facilities		No change Bicycle lanes are not recommended on State Route 46 due to the high percentage of truck traffic.			Sidewalks and medians should improve pedestrian safety. Bicycle lanes are not recommended on State Route 46 due to the high percentage of truck traffic and the presence of on-street parking.	Sidewalks and medians with pedestrian refuges should improve pedestrian safety. Bicycle lanes are not recommended on State Route 46 due to the high percentage of truck traffic and the presence of on-street parking.	Sidewalks and medians should improve pedestrian safety. Bicycle lanes are not recommended on State Route 46 due to the high percentage of truck traffic and the presence of on-street parking.	Sidewalks and medians with pedestrian refuges should improve pedestrian safety. Bicycle lanes are not recommended on State Route 46 due to the high percentage of truck traffic and the presence of on-street parking.	Sidewalks should improve pedestrian safety. Bicycle lanes are not recommended on State Route 46 due to the high percentage of truck traffic.			No change
Visual/Aesthetics		No change			No change				No change		Allows negative views into industrial areas of the city. Overpass is out of context with the flat nature of the surrounding community.	No change
Hazardous Waste/Materials		Potential lead-based paint on one building and residual agricultural chemicals in the soil.	Potential hazardous waste on one parcel, lead-based paint on one building and residual agricultural chemicals in the soil.		Potential hazardous waste on 10 parcels.				Potential hazardous waste on two parcels and lead-based paint on the Burlington Northern/Santa Fe Railroad bridge.			No change
Air Quality		Improved level of service and safety offset additional traffic over time.			Improved level of service and safety offset additional traffic over time.				Improved level of service and safety offset additional traffic over time.			Additional traffic and lower level of service decrease air quality over time.
Noise and Vibration		Noise abatement not feasible because soundwalls would restrict access to residences. Recreational area not a place of frequent human use. Noise levels at the cemetery are below the noise abatement criteria.			Noise abatement not feasible because soundwalls would restrict access to affected property.				Increase in noise does not meet noise abatement criteria.			No noise impacts
Threatened and Endangered Species		Purchase 8.73 hectares (21.58 acres) of land for San Joaquin kit fox mitigation.			Purchase 1.20 hectares (2.96 acres) of land for San Joaquin kit fox mitigation.				Purchase 3.70 hectares (7.90 acres) of land for San Joaquin kit fox mitigation.			No change

*One of these is an electrical substation for the prison.



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Chapter 1 Proposed Project

1.1 Project Description

Caltrans and the Federal Highway Administration propose to upgrade 8.4 kilometers (5.22 miles) of State Route 46 from a two-lane conventional highway to a four-lane conventional highway, four-lane expressway, or combination of the two between the Jumper Avenue alignment (which runs along the west side of the Wasco State Prison) and “J” Street (State Route 43-North) as the route passes through the City of Wasco in north-central Kern County. See Figures 1-1 and 1-2.

The proposed project includes constructing left-turn lanes and curb-gutter-sidewalk improvements, widening the existing Burlington Northern/Santa Fe Railroad underpass, improving drainage, and installing traffic signals at the intersections of State Route 46 with Griffith Avenue and “J” Street (State Route 43-North). Minor improvements to “F,” “J” and 6th streets would be required to detour traffic during construction at the Burlington Northern/Santa Fe Railroad underpass.

The State Route 46 Wasco 4-Lane Widening project is included in the approved 2004 Federal Transportation Plan and will be included in the updated 2006 Federal Transportation Improvement Program. Future funding is also shown in the Kern Council of Governments Destination 2030 Regional Transportation Plan over the 15-year planning period.

Upon completing environmental compliance for the project, Caltrans could decide to construct the project in phases. A decision to construct the project in phases would depend on the amount of funding available and the cost of the project.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is twofold:

- Increase the vehicular capacity of State Route 46 to meet existing and projected traffic volumes
- Improve the safety and operation of State Route 46

Improvements to State Route 46 would address problems that the community is experiencing with increasing congestion and safety issues at a number of intersections in the project area.

Traffic on State Route 46 within the project area is projected to increase from 11,385 average daily trips in 2007 to 19,280 average daily trips in 2027. Trucks, including buses and recreational vehicles, compose between 35% and 42% of the traffic. Traffic in this segment of the highway is projected to grow 3.2% yearly.

The anticipated growth in the community is expected to affect the operation of State Route 46, causing the Level of Service on the existing highway to decrease in the 20-year design period increasing the regional/local traffic conflicts.

Safety analyses conducted over time by Caltrans indicated that the overall accident rates for the highway segment within the project limits were lower than the statewide average for similar roadways with comparable traffic volumes. However, accident rates at an increasing number of intersections within the project limits were higher than the statewide average, indicating a trend toward more local/regional traffic conflicts.

Since 1969, there have been efforts to develop improvements on State Route 46. Funding shortfalls in the 1970s and the precedence of other higher priority projects caused those improvement projects to be dropped. There has been renewed interest in State Route 46. The community of Wasco has expressed concerns over capacity and safety on this route. The concerns arise from the existing narrow two- to three-lane roadway, lack of traffic signals at intersections, the high percentage of truck traffic, and the number of accidents. These concerns, coupled with the fact that most of the proposed development in the City of Wasco is slated to occur along the State Route 46 corridor, have led the City of Wasco and Kern County to make the proposed improvements discussed in this document a high priority.

State Route 46 begins at State Route 1 near Cambria in San Luis Obispo County and extends 190 kilometers (118 miles) to State Route 99 near Famosa in Kern County. State Route 46 is a predominantly east-west highway running through the San Joaquin Valley. Between Interstate 5 and State Route 99, State Route 46 is designated as a “conventional” (no access control) highway and is included in the “Freeway and Expressway” system according to the Streets and Highways Code. It is a federal aid route on the National Highway System, functionally classified as a minor arterial between Interstate 5 and State Route 99.

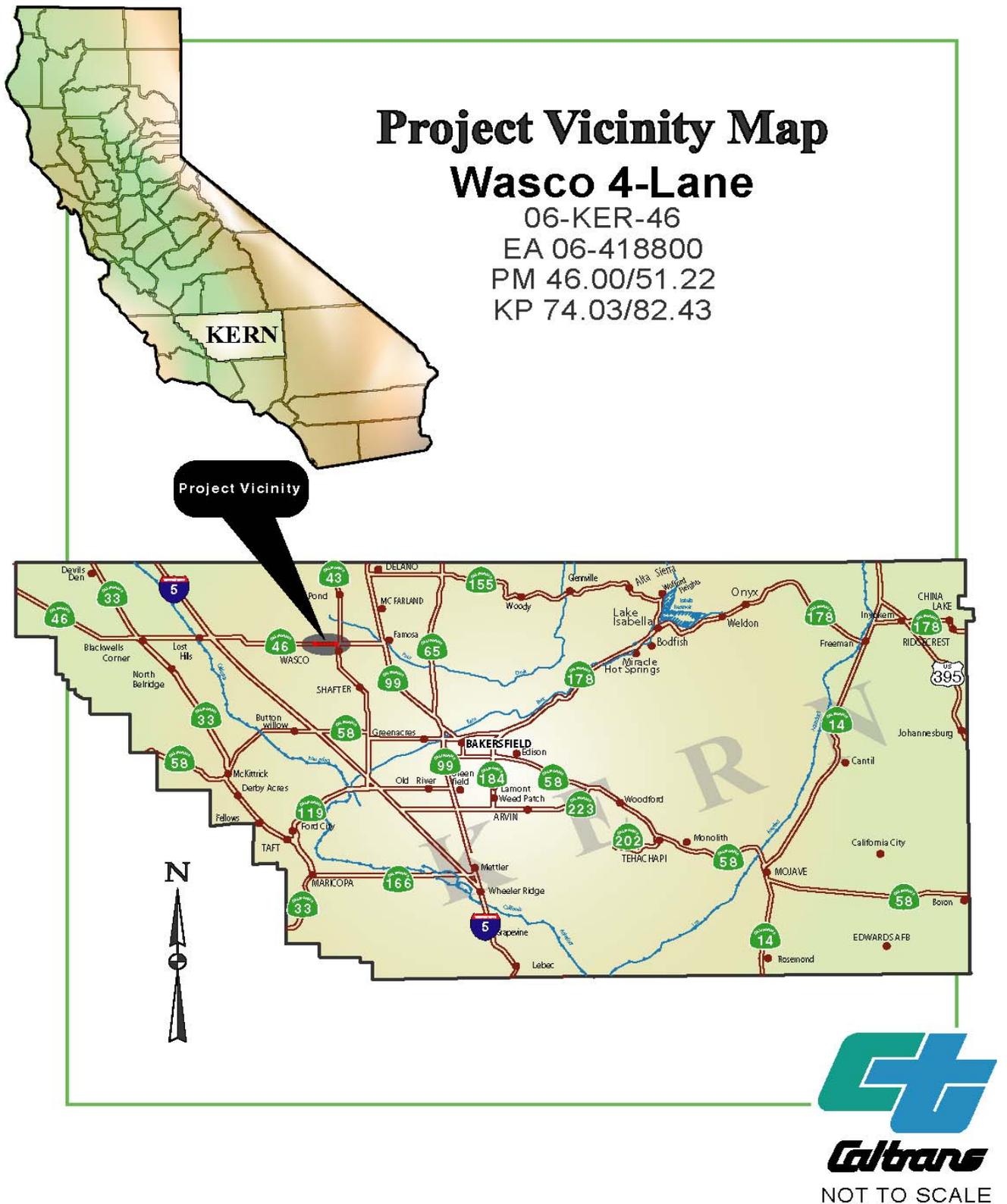


Figure 1-1. Project Vicinity Map



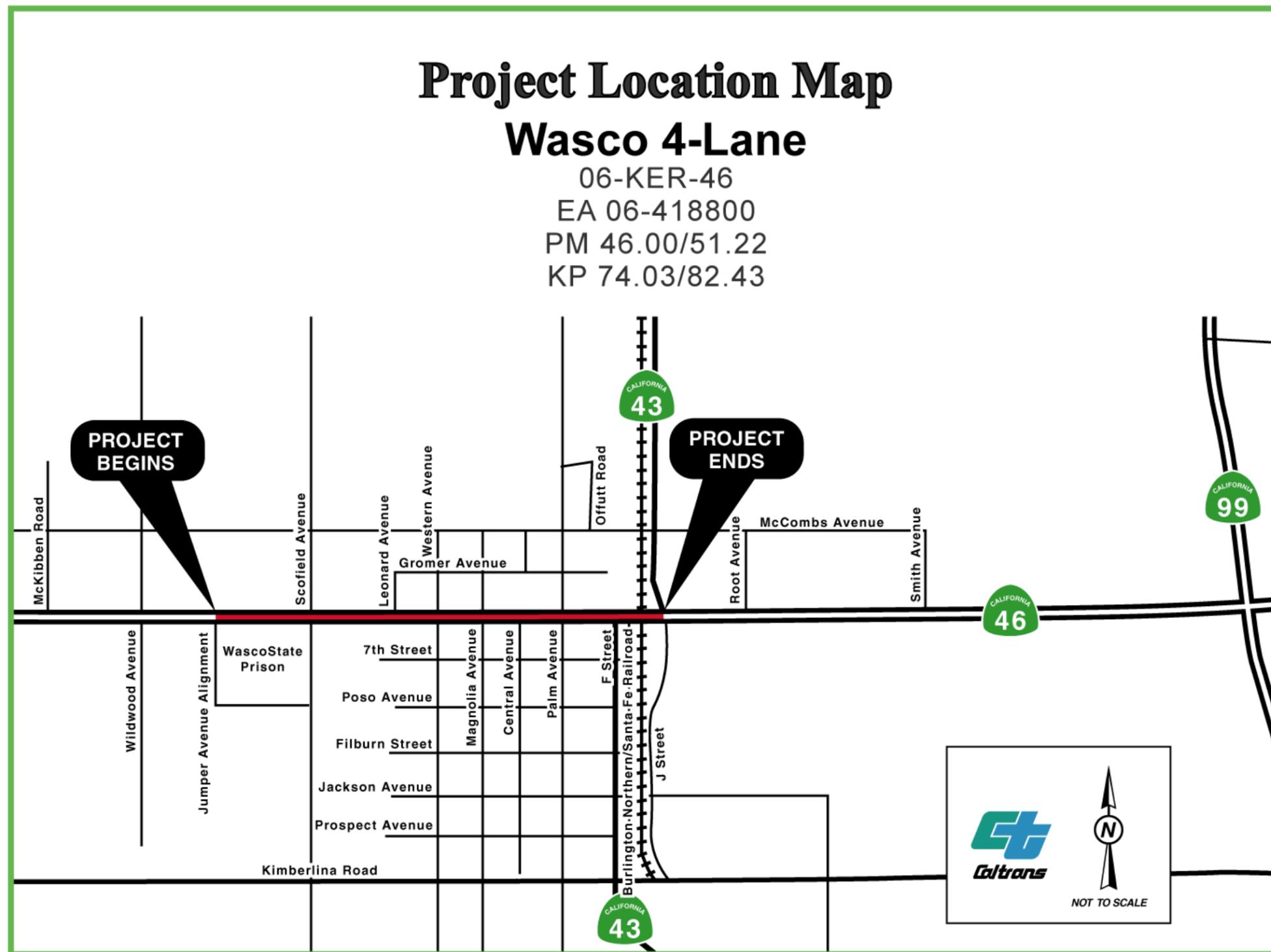


Figure 1-2. Project Location Map



Traffic on State Route 46 is typically interregional, with many vehicles carrying agricultural products from the southern San Joaquin Valley. State Route 46 is also heavily used on weekends by recreational vehicles traveling between the San Joaquin Valley and the communities on the Central Coast. Within the City of Wasco, State Route 46 carries the highest daily traffic count of 10,300 vehicles per day just west of the intersection of Palm Avenue. State Route 46 is designated as a State Highway Terminal Access Route for larger trucks under the Federal Surface Transportation Assistance Act of 1982. A December 2000 Operational Analysis by the Caltrans District 6 Office of Traffic Engineering indicated that truck traffic composed between 35% to 42% of the average daily traffic volume within the limits of the project.

The Caltrans District 6 System Management Plan indicates that State Route 46, along with State Route 58, is considered an unofficial interstate corridor based on its function of providing access from the coast through the valley and across the Sierra Nevada mountains to Arizona and Nevada. This is one of the nation's more prominent freight corridors because a high volume of the valley's food and cash crops is distributed to the rest of the country through this corridor.

The Caltrans District 6 System Management Plan indicates that most of the deficiencies along State Route 46 are within the urban area of Wasco. This is because State Route 46 is also a regional commute corridor.

The July 2001 Caltrans Transportation Concept Report for State Route 46 in Kern County indicates that the 20-year concept for the highway between "J" Street (State Route 43-North) and Scofield Avenue is a four-lane conventional highway. The 20-year concept for the segment of State Route 46 between Scofield Avenue and the Jumper Avenue alignment is a four-lane expressway.

1.2.2 Need

1.2.2.1 Traffic

Traffic on State Route 46 within the project area is projected to increase from 11,385 average daily trips in 2007 to 19,280 average daily trips in 2027. Trucks, including buses and recreational vehicles, compose between 35% and 42% of the traffic. Buses and recreational vehicles make up 5% of the traffic by themselves. The July 2001 Caltrans Transportation Concept Report for State Route 46 indicates that traffic in this segment of the highway is projected to grow 3.2% yearly.

Traffic volume is defined through the use of the Levels of Service rating. Levels of Service describe the operating conditions a driver would experience while traveling on a highway. This rating system ranges from “A” to “F,” with “A” being free-flowing traffic and “F” being traffic with heavy congestion and considerable delays. Figure 1-3 illustrates the Levels of Service rankings for a two-lane highway.

Caltrans prepared an Operational Analysis dated September 14, 2005. The Operational Analysis indicated the western segment of the project between the Jumper Avenue alignment and Scofield Avenue is operating at Level of Service C as is the eastern segment of the project between “F” Street (State Route 43-South) and “J” Street (State Route 43-North). The middle segment of the project between Magnolia Avenue and “F” Street (State Route 43-South) is operating at Level of Service D.

1.2.2.2 Operation

Within the urban area of Wasco, State Route 46 is characterized by retail and service commercial land uses. The City of Wasco expects substantial growth in this area in the coming years. The anticipated growth in the community is expected to affect the operation of State Route 46, causing the Level of Service on the existing highway to deteriorate from Level of Service D to Level of Service E in the 20-year design period. The average daily traffic volume within the project limits is expected to increase by 69% from 11,385 to 19,280 vehicles between 2007 and 2027.

The anticipated growth in the community would increase the regional/local traffic conflicts. The afternoon peak-hour Level of Service for five (29%) of the intersections within the project limits is projected to be D or worse in the 20-year design period. These conditions are attributed to the long delays experienced by the large amounts of local traffic from the side streets trying to find gaps in the increasing regional through-traffic on State Route 46.

State Route 46 currently has traffic signals at the intersections with “F” Street (State Route 43-South) and Palm Avenue. The intersections with Griffith Street, Annin Avenue and “J” Street (State Route 43-North) are projected to meet Caltrans’ requirements for the installation of new traffic signals based upon projected year 2027 afternoon peak-hour traffic demands.

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

1.2.2.3 Safety

A safety analysis prepared in 2005, covering July 1, 2001 to June 30, 2004, indicated that the overall accident rates for the highway segment within the project limits were lower than the statewide average for similar roadways with comparable traffic volumes. However, accident rates at some intersections within the project limits were higher than the statewide average. The accident rates, shown in accidents per million-vehicle kilometers, are as follows:

	<u>Fatal</u>	<u>Fatal+Injury</u>	<u>Total</u>
<i>Actual</i>	0.000	0.54	0.70
<i>Average</i>	0.025	0.70	1.60

Seventeen streets within the project limits intersect State Route 46. Safety analyses conducted over time by Caltrans indicate a trend toward accident concentrations at an increasing number of these intersections, ranging from five intersections in 1999 to nine intersections in 2004.

The safety analysis prepared in 2005 indicated that the actual accident rate for 11 of the 17 intersections (Peters, Palm, Maple, Poplar, Birch, Griffith, Broadway, and Annin avenues, and “E” Street, “F” Street [State Route 43-South] and “J” Street [State Route 43-North]) along State Route 46 was above the statewide average for similar intersections (see Table 1.1). Accidents at these 11 intersections accounted for 65% of all the accidents that occurred in the project area between 2001 and 2004. The accident rates at Maple and Poplar avenues are above the statewide average for similar intersections, but are not considered to be statistically substantial and thus are not counted in the number of intersections that have accident concentrations.

All of the build alternatives would improve safety on State Route 46. All of the build alternatives include left-turn lanes at all intersections where turns are allowed and traffic signals at some intersections. Left-turn lanes would help the traffic flow through intersections by separating vehicles that must slow or stop before exiting the highway. New traffic signals at the major intersections would enable traffic from side streets to enter or cross the highway more easily. Two additional lanes would not only improve the capacity of the highway, but also allow for passing opportunities around slower-moving traffic. The operations of highways with high truck volume can be improved by increasing mainline capacity. In addition, the improved Level of Service would provide sufficient gaps in the flow of traffic to allow vehicles from the side streets to enter the highway more easily.

Table 1.1 Accident Rates at Intersections in the Proposed Project Area

Location	Fatalities*	Fatalities + Injuries*	Total*
Scotfield Avenue			
Actual	0.000	0.00	0.10
Average	0.004	0.14	0.34
Leonard Avenue			
Actual	0.000	0.10	0.10
Average	0.002	0.08	0.19
Western Avenue			
Actual	0.000	0.00	0.00
Average	0.004	0.14	0.34
Magnolia Avenue			
Actual	0.000	0.18	0.27
Average	0.004	0.14	0.34
Central Avenue			
Actual	0.000	0.00	0.00
Average	0.001	0.06	0.14
Beckes Street			
Actual	0.000	0.00	0.00
Average	0.001	0.06	0.14
Peters Street			
Actual	0.000	0.16	0.23
Average	0.001	0.06	0.14
Palm Avenue			
Actual	0.000	0.13	0.60
Average	0.002	0.09	0.24
Maple Avenue			
Actual	0.000	0.00	0.15
Average	0.001	0.06	0.14
Poplar Avenue			
Actual	0.000	0.00	0.15
Average	0.001	0.06	0.14
Birch Avenue			
Actual	0.000	0.00	0.23
Average	0.001	0.06	0.14
Griffith Avenue			
Actual	0.000	0.30	1.21
Average	0.002	0.09	0.22
Broadway			
Actual	0.000	0.15	0.31
Average	0.002	0.09	0.22
Annin Avenue			
Actual	0.000	0.08	0.23
Average	0.001	0.06	0.14
'E' Street			
Actual	0.000	0.08	0.87
Average	0.001	0.06	0.14
'F' Street (Junction State Route 43-South)			
Actual	0.000	0.08	0.33
Average	0.001	0.06	0.14
'J' Street (Junction State Route 43-North)			
Actual	0.000	0.29	1.08
Average	0.007	0.18	0.55

* Accident rates are shown in accidents per million vehicles.

Most of the build alternatives include construction of a raised median between Magnolia Avenue and “F” Street (State Route 43-South). A raised median would decrease traffic conflicts by preventing left turns from many local streets.

Under the No-Build Alternative, the accident rate on this portion of State Route 46 would continue to rise over time and Level of Service would worsen as traffic volume increases.

1.3 Alternatives

This section describes the proposed actions and the design alternatives that were developed to achieve the project purpose and need while avoiding or minimizing environmental impacts.

The project proposes to upgrade 8.4 kilometers (5.22 miles) of State Route 46 from a two-lane conventional highway to a four-lane conventional highway, four-lane expressway, or combination of the two between kilometer posts 74.03 and 82.43 (post miles 46.00 and 51.22) through Wasco in north-central Kern County.

The project area was divided into three segments during the alternative development process. See Figure 1-4. Multiple alternatives were developed for each of the three segments. Four-lane conventional highway and four-lane expressway alternatives are under consideration for Segment 1 of the project between the Jumper Avenue alignment and Magnolia Avenue. Four-lane conventional highway alternatives are under consideration for Segment 2, between Magnolia Avenue and “F” Street (State Route 43-South), and for Segment 3, between “F” Street (State Route 43-South) and “J” Street (State Route 43-North).

Segment 1 is mostly rural. The primary land use is agriculture. However, three other important land uses lie within this segment of the project: a state prison, a golf course, and a cemetery.

Segment 2 is mostly commercial. It contains a mix of businesses serving local residents and the traveling public. Some single-family homes are scattered throughout the older eastern portion of the area, and the area between Central and Magnolia avenues is still in agricultural use.

Segment 3 is a small industrial area. The main feature of this segment of State Route 46 is an underpass of the Burlington Northern/Santa Fe Railroad.

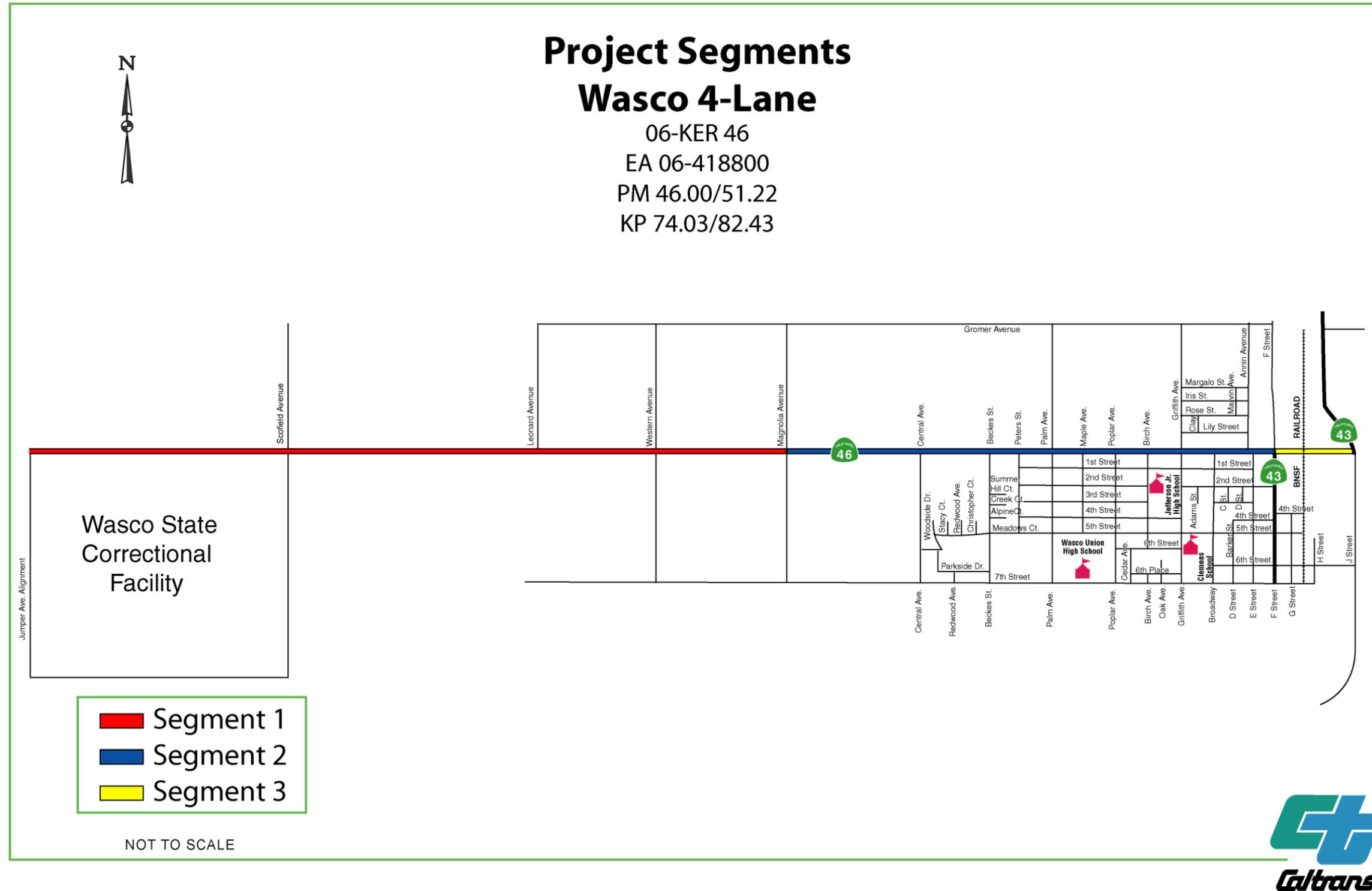


Figure 1-4. Project Segments



1.3.1 Build Alternatives

Multiple build alternatives are under consideration for each segment of the project as well as a no-build alternative.

1.3.1.1 Build Alternatives [Segment 1 - Rural]

A four-lane divided conventional highway or a four-lane divided expressway would be constructed in Segment 1 of the project. Three alternatives are under consideration.

Common Design Features of the Build Alternatives [Segment 1 - Rural]

Each of the three build alternatives would have 1.5-meter (5-foot) inside shoulders. Left-turn lanes would be constructed at Scofield, Leonard, Western and Magnolia avenues.

Unique Features of the Build Alternatives [Segment 1 - Rural]

Alternative 1

Alternative 1 would construct a four-lane divided conventional highway. See Figure H-1 in Appendix H. The existing highway would be widened to the south 16.5 to 22.5 meters (54 to 74 feet). There would be a 9-meter (30-foot) unpaved center median. This alternative includes an asphalt concrete overlay of the existing two lanes, construction of two additional 3.6-meter (12-foot) lanes and 2.4-meter (8-foot) outside shoulders. The new lanes would be constructed at the same elevation as the existing lanes. Culverts would be placed to drain the median. Side ditches would be constructed to handle drainage from the highway.

Alternative 1 would improve safety by separating oncoming traffic and reducing conflicting traffic movements with a center median and left-turn lanes at major intersections. Additional recovery area would be provided with inside and outside shoulders.

Operation of the highway would be improved by increasing capacity with an additional through lane in each direction of travel and left-turn lanes at major intersections.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$17.5 million (2006 dollars).

Alternative 2

Alternative 2 would construct a four-lane divided expressway. See Figure H-2 in Appendix H. The existing highway would be widened to the south 27 to 33 meters (89 to 109 feet). There would be an 18.9-meter (62-foot) unpaved center median. This alternative includes an asphalt concrete overlay of the existing two lanes, construction of two additional 3.6-meter (12-foot) lanes and 3-meter (10-foot) outside shoulders. The new lanes would be constructed at the same elevation as the existing lanes. Culverts would be placed to drain the median. Side ditches would be constructed to handle drainage from the highway. This alternative would also construct frontage roads on both sides of the highway, where needed, to provide access to adjoining parcels. Both frontage roads would include two 3.6-meter (12-foot) lanes and 1.2-meter (4-foot) shoulders.

Alternative 2 would improve safety by separating oncoming traffic and reducing conflicting traffic movements with a center median and left-turn lanes at major intersections. Additional recovery area would be provided with inside and outside shoulders.

Operation of the highway would be improved by increasing capacity with an additional through lane in each direction of travel and left-turn lanes at major intersections. Operation of the highway would also be improved by building the highway to expressway standards, which would allow access only at major half-mile intersections.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$21.5 million (2006 dollars).

Alternative 3

This alternative would construct a four-lane divided expressway. See Figure H-3 in Appendix H. The existing highway would be widened to the south 41 meters (135 feet). There would be an 18.9-meter (62-foot) unpaved center median. This alternative includes construction of four 3.6-meter (12-foot) lanes and 3-meter (10-foot) outside shoulders. This alternative would reconstruct the existing two lanes. The new roadway would be raised about 1 meter (3 feet) to allow for construction of a drainage system. Due to the height of the new lanes, this alternative would require the acquisition of enough right-of-way to accommodate a 1:6 side slope. This alternative would also construct frontage roads on both sides of the highway, where needed, to

provide access to adjoining parcels. Both frontage roads would include two 3.6-meter (12-foot) lanes and 1.2-meter (4-foot) shoulders.

Alternative 3 would improve safety by separating oncoming traffic and reducing conflicting traffic movements with a center median and left-turn lanes at major intersections. Additional recovery area would be provided with inside and outside shoulders.

Operation of the highway would be improved by increasing capacity with an additional through lane in each direction of travel and left-turn lanes at major intersections. Operation of the highway would also be improved by building the highway to expressway standards, which would allow access only at major half-mile intersections.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$26.6 million (2006 dollars).

1.3.1.2 Build Alternatives [Segment 2 - Commercial District]

A four-lane conventional highway would be constructed in Segment 2 of the project. Four build alternatives are under consideration for this segment of the project.

Common Design Features of the Build Alternatives [Segment 2 - Commercial District]

Each of the four build alternatives would have four 3.6-meter (12-foot) lanes and 0.6-meter (2-foot) inside shoulders. A 3.6-meter (12-foot) left-turn lane would be constructed at selected intersections, including Beckes Street and Poplar, Griffith, Broadway and Annin avenues. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue.

Unique Features of the Build Alternatives [Segment 2 - Commercial District]

Alternative 6b

Alternative 6b would construct a four-lane conventional highway. See Figure H-4 in Appendix H. The existing highway would be widened symmetrically 3 meters (10 feet). There would be a 3.6-meter (12-foot) raised center median, 0.6-meter (2-foot) inside shoulders and 2.4 meter (8-foot) outside shoulders. A 1.5-meter (5-foot) sidewalk would be constructed.

Alternative 6b would improve operation and safety of the highway by adding an additional through lane in each direction of travel, separating oncoming traffic, and reducing conflicting traffic movements with a raised center median and left-turn lanes at selected intersections. Access to State Route 46 would then be restricted to right-in and right-out movements only, so motorists who want to cross the highway or make left turns onto the highway would have to go to the intersections with traffic signals. Safety for pedestrians would also improve with the raised center medians, traffic signal at Griffith Avenue, and sidewalks throughout Segment 2.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$14.1 million (2006 dollars).

Alternative 7b

Alternative 7b would construct a four-lane conventional highway. See Figure H-5 in Appendix H. The existing highway would be widened symmetrically 4.2 meters (14 feet). There would be a 4.8-meter (16-foot) raised center median, including a 1.2-meter (4-foot) pedestrian refuge (an area where pedestrians can wait safely before continuing across the road), 0.6-meter (2-foot) inside shoulders and 2.4-meter (8-foot) outside shoulders. A 1.5-meter (5-foot) sidewalk would be constructed.

Alternative 7b would improve operation and safety of the highway by adding an additional through lane in each direction of travel, separating oncoming traffic, and reducing conflicting traffic movements with a raised center median and left-turn lanes at selected intersections. Access to State Route 46 would then be restricted to right-in and right-out movements only, so motorists who want to cross the highway or make left turns onto the highway would have to go to the intersections with traffic signals. Safety for pedestrians would also improve with the raised center median with a pedestrian refuge, a traffic signal at Griffith Avenue, and sidewalks throughout Segment 2.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$14.4 million (2006 dollars).

Alternative 8b

Alternative 8b would construct a four-lane divided highway. See Figure H-6 in Appendix H. The existing highway would be widened symmetrically 4.8 meters (16 feet). There would be a 3.6-meter (12-foot) raised center median, 0.6-meter (2-foot)

inside shoulders and 2.4-meter (8-foot) outside shoulders. A 2.4-meter (8-foot) sidewalk would be constructed.

Alternative 8b would improve operation and safety of the highway by adding an additional through lane in each direction of travel, separating oncoming traffic, and reducing conflicting traffic movements with a raised center median and left-turn lanes at selected intersections. Access to State Route 46 would then be restricted to right-in and right-out movements only, so motorists who want to cross the highway or make left turns onto the highway would have to go to the intersections with traffic signals. Safety for pedestrians would also improve with the raised center medians, a traffic signal at Griffith Avenue, and sidewalks throughout Segment 2.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$19.7 million (2006 dollars).

Alternative 9b

Alternative 9b would construct a four-lane divided highway. See Figure H-7 in Appendix H. The existing highway would be widened symmetrically 8.5 meters (28 feet). There would be a 4.8-meter (16-foot) landscaped raised center median, including a 1.2-meter (4-foot) pedestrian refuge, 0.6-meter (2-foot) inside shoulders and 3-meter (10-foot) outside shoulders. A 3-meter (10-foot) sidewalk would be constructed.

Alternative 9b would improve operation and safety of the highway by adding an additional through lane in each direction of travel, separating oncoming traffic and reducing conflicting traffic movements with a raised center median and left-turn lanes at selected intersections. Access to State Route 46 would then be restricted to right-in and right-out movements only, so motorists who want to cross the highway or make left turns onto the highway would have to go to the intersections with traffic signals. Safety for pedestrians would also improve with the raised center median with a pedestrian refuge, a traffic signal at Griffith Avenue, and sidewalks throughout Segment 2.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$22.2 million (2006 dollars).

1.3.1.3 Build Alternatives [Segment 3 - Railroad Underpass]

A four-lane conventional highway would be constructed in Segment 3 of the project. Three build alternatives are under consideration for this segment of the project.

Common Design Features of the Build Alternatives [Segment 3 - Railroad Underpass]

Each of the three build alternatives would have four 3.6-meter (12-foot) lanes, 2.4-meter (8-foot) outside shoulders, 0.6-meter (2-foot) inside shoulders and be divided by a 4.8-meter (16-foot) raised center median. A 3.6-meter (12-foot) left-turn lane would be constructed at “F” Street (State Route 43-South) and “J” Street (State Route 43-North). A 1.5-meter (5-foot) sidewalk would also be constructed. A traffic signal would be installed at the intersection of State Route 46 and “J” Street (State Route 43-North).

During construction of improvements in Segment 3, traffic would have to be detoured. Traffic on State Route 46 would be rerouted along “F,” “J” and 6th streets. The intersections of 6th and “F” streets and 6th and “J” streets would be improved to accommodate truck turns. The Burlington Northern/Santa Fe Railroad crossing at 6th Street would also be reconstructed.

Unique Features of the Build Alternatives [Segment 3 - Railroad Underpass]

Alternative 11a

Alternative 11a would construct a four-lane conventional highway. See Figure H-8 in Appendix H. The existing highway, currently 30.5 meters (100 feet) wide, would be widened to the south. The right-of-way for this alternative would be increased to 64 meters (210 feet) at its widest point. A new pump plant would be installed to provide drainage for the underpass. The capacity of the adjoining drainage basin would be expanded. This alternative would construct a shoofly (train detour) and a temporary structure to allow railroad traffic to continue during construction.

Alternative 11a would improve operation and safety of the highway by adding an additional through lane in each direction of travel, separating oncoming traffic, and reducing conflicting traffic movements with a raised center median and left-turn lanes at major intersections. Safety for pedestrians would also improve with the raised center median, a traffic signal at “J” Street, and sidewalks throughout Segment 3.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$14.3 million (2006 dollars).

Alternative 11b

Alternative 11b would construct a four-lane conventional highway. See Figure H-9 in Appendix H. The existing highway, currently 30.5 meters (100 feet) wide, would be widened symmetrically. The right-of-way for this alternative would be increased to 64 meters (210 feet) at its widest point. A new pump plant would be installed to provide drainage for the underpass. The capacity of the adjoining drainage basin would be expanded. This alternative would construct a shoofly (train detour) and a temporary structure to allow railroad traffic to continue during construction.

Alternative 11b would improve operation and safety of the highway by adding an additional through lane in each direction of travel, separating oncoming traffic, and reducing conflicting traffic movements with a raised center median and left-turn lanes at major intersections. Safety for pedestrians would also improve with the raised center median, a traffic signal at “J” Street, and sidewalks throughout Segment 3.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$15.1 million (2006 dollars).

Alternative 12a

Alternative 12a would remove the existing railroad underpass and replace it with an overpass shifted to the south. See Figure H-10 in Appendix H. The existing highway right-of-way is 30.5 meters (100 feet) wide. This alternative requires additional right-of-way to accommodate the fill slopes required for the structure. The right-of-way for this alternative would be increased to 72 meters (236 feet) at its widest point.

Alternative 12a would improve operation and safety of the highway by adding an additional through lane in each direction of travel, separating oncoming traffic, and reducing conflicting traffic movements with a raised center median and left-turn lanes at major intersections. Safety for pedestrians would also improve with the raised center median, a traffic signal at “J” Street, and sidewalks throughout Segment 3.

With construction scheduled to begin in 2014, the estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is \$14.4 million (2006 dollars).

1.3.2 No-Build Alternative

Under the No-Build Alternative, State Route 46 would remain in its current condition. The highway would continue to consist of two 3.6-meter (12-foot) lanes with 2.4-meter (8-foot) shoulders throughout most of the project area. (In Segment 2, the existing highway has 4-meter [13-foot] shoulders.)

This alternative would do nothing to relieve congestion, improve safety or rehabilitate the pavement within this segment of State Route 46. Without the proposed improvements, as traffic increases over time, accident rates are expected to rise and the Level of Service of the highway is expected to worsen. Maintenance costs would also be expected to increase over time. The No-Build Alternative would not allow the upgrades necessary to improve safety, such as construction of a median and left-turn lanes to control conflicting traffic movements.

1.3.3 Comparison of Alternatives

The project area was divided into three segments during the alternative development process. See Figure 1-3. Multiple alternatives were developed for each of the three segments. Four-lane conventional highway and four-lane expressway alternatives are under consideration for the first segment of the project between the Jumper Avenue alignment and Magnolia Avenue. Four-lane conventional highway alternatives are under consideration for both Segment 2, between Magnolia Avenue and “F” Street (State Route 43-South), and Segment 3, between “F” Street (State Route 43-South) and “J” Street (State Route 43-North).

Criteria for comparing alternatives in each segment of the project were developed in meetings with staff from the City of Wasco, Kern County and the Kern Council of Governments. Caltrans also took into consideration comments and concerns expressed at a public information meeting held on April 26, 2001. In addition, meetings have been held with Caltrans staff to review the input received from local agencies and the public and to review studies and technical reports prepared by Caltrans.

1.3.3.1 Build Alternatives [Segment 1 - Rural]

Three alternatives were developed and are under consideration for this segment of the project. Criteria that were used to select a preferred alternative in Segment 1 include conformance with the circulation element of the Wasco General Plan and Caltrans’ Transportation Concept Report for State Route 46, the alternative that uses the least amount of right-of-way while meeting the project purpose and need, and the

alternative that avoids impacts to the existing electrical substation at the corner of State Route 46 and Scofield Avenue. See Table 1.2.

All three of the build alternatives under consideration for Segment 1 conform with the Wasco General Plan and Caltrans' Transportation Concept Report for State Route 46. However, Alternatives 2 and 3 are designed to meet expressway standards; they would make future urban development in the area between Magnolia Avenue and Scofield Avenue more difficult because no access would be allowed from State Route 46 to the adjoining parcels. To accommodate access to future development along State Route 46, it would be necessary to build access points from adjoining arterial and collector streets at 0.8-kilometer (0.5-mile) intervals. It also could be necessary to build additional streets in the area to facilitate access.

Alternative 2 requires an additional 27 to 33 meters (89 to 109 feet) of right-of-way and would have a total cross-section of up to 51.5 meters (169 feet). Alternative 3 requires an additional 41 meters (135 feet) of right-of-way and would have a total cross-section of 59 meters (195 feet).

Alternative 3 would require acquisition and relocation of a portion of the existing electrical substation that serves the Wasco State Prison. Substations are associated with transformers, which can contain polychlorinated biphenyls; commonly known as PCBs. Polychlorinated biphenyls are listed as a hazardous material because they can cause cancer and birth defects.

The No-Build Alternative would leave Segment 1 with a cross-section of 12 meters (40 feet) and would do nothing to meet the purpose and need of the project. The No-Build Alternative would not allow the upgrades necessary to improve safety, such as construction of left-turn lanes that help to control conflicting traffic movements. Safety would continue to be a concern in this segment of the highway if urban expansion is allowed but the highway is not improved.

Table 1.2 Comparison of Build Alternatives in Segment 1

Criteria	Alternative 1	Alternative 2	Alternative 3	No-Build Alternative
Conforms with state and local planning policies	Yes	Yes	Yes	No
Additional right-of-way required	16.5 to 22.5 meters (54 to 74 feet)	27 to 33 meters (89 to 109 feet)	41 meters (135 feet)	None
Avoids electrical substation	Yes	Can be done through design	No	Yes

1.3.3.2 Build Alternatives [Segment 2 - Commercial District]

Four alternatives are being considered for this segment of the project. Criteria that were used to select the preferred alternative in Segment 2 include pedestrian safety, reduction of traffic conflicts, and the number of full right-of-way acquisitions needed. See Table 1.3.

All four build alternatives considered for Segment 2 would provide substantial improvements to the operation and safety of this portion of State Route 46. With full shoulder widths and protected left-turn lanes separating turning traffic from through traffic, accident rates would be expected to drop. In addition, the operation of State Route 46 would be enhanced with the addition of through lanes. Beyond those benefits, Alternative 9b has an additional advantage over the other alternatives considered for Segment 2 because it would provide the greatest degree of pedestrian safety. With the proposed 4.8-meter (16-foot) raised center median, Alternative 9b would provide a 1.2-meter (4-foot) pedestrian refuge. In addition, the 3-meter (10-foot) shoulders and 3-meter (10-foot) sidewalks add further separation between pedestrians and moving vehicles.

Construction of a center median with left-turn lanes and a traffic signal at Griffith Avenue would decrease traffic conflicts for all of the build alternatives under consideration in this segment. Without the construction of a center median or left-turn lanes, accident rates would be expected to increase.

The No-Build Alternative does nothing to improve the existing conditions.

For the build alternatives in this segment, the number of properties that would be eligible for the Relocation Assistance Program ranges from none to six. Some of the acquisitions for Alternatives 8b and 9b involve more than one business located on a parcel. In addition, there is flexibility, if necessary, to decrease the sidewalk width at spot locations from 3 meters (10 feet) to 1.5 meters (5 feet) to preserve structures and off-street parking.

Table 1.3 Comparison of Build Alternatives in Segment 2

Criteria	Alternative 6b	Alternative 7b	Alternative 8b	Alternative 9b	No-Build Alternative
Increases pedestrian safety	Yes	Yes	Yes	Yes	No
Decreases traffic conflicts	Yes	Yes	Yes	Yes	No
Potential parcels eligible for the Relocation Assistance Program	0	0	5	6	0

1.3.3.3 Build Alternatives [Segment 3 - Railroad Underpass]

Three alternatives are being considered for this segment of the project. Criteria that were used to select a preferred alternative in Segment 3 include the number of right-of-way acquisitions that would be required and the visual effects of the alternatives on the community. See Table 1.4.

Both Alternative 11a and Alternative 11b would construct an underpass that would maintain the visual context of the community and the surrounding area. Alternative 11a would result in two parcels being eligible for the Relocation Assistance Program. Because Alternative 11b would widen the proposed underpass symmetrically, an existing industrial business on the north side of the current underpass would be included for a total of three parcels eligible for the Relocation Assistance Program.

Alternative 12a would construct an overpass that would be out of visual context with the community and the surrounding area. The overpass would result in raising the “F” Street/State Route 43-South and “J” Street/State Route 43-North intersections 2.4 to 3.0 meters (8 to 10 feet) above current grade to provide proper clearance for the

Burlington Northern/Santa Fe Railroad tracks. This alternative would result in two properties that would be eligible for the Relocation Assistance Program to accommodate the overpass in Segment 2 and two properties in Segment 3.

Even though the No-Build Alternative would be in keeping with the visual context of the community and the surrounding area and it does not result in any property acquisitions, it does not meet the purpose and need of the project.

Table 1.4 Comparison of Build Alternatives in Segment 3

Criteria	Alternative 11a	Alternative 11b	Alternative 12a	No-Build Alternative
Potential parcels eligible for the Relocation Assistance Program	2	3	4*	0
Visual effects	None	None	Yes	None

**Two of these parcels would be located in Segment 2 due to the need to raise the "F" Street – State Route 43/State Route 46 intersection 2.4 to 3.0 meters (8 to 10 feet) above current grade to provide proper clearance for the Burlington Northern/Santa Fe Railroad tracks.*

1.3.4 Identification of a Preferred Alternative

Based on environmental impacts and after consideration of public comments, Caltrans selected the following as the preferred alternatives: for Segment 1, Alternative 1 between Magnolia Avenue and Scofield Avenue, transitioning to a rural expressway west of Scofield Avenue; for Segment 2, Alternative 9b; and for Segment 3, Alternative 11a. With construction scheduled to start in 2014, the estimated combined cost of the preferred alternatives would be \$54 million (2006 dollars).

Build Alternative [Segment 1 - Rural]

Alternative 1 is the preferred alternative for this segment of the project. Alternative 1 conforms with the Wasco General Plan and Caltrans' Transportation Concept Report for the eastern portion of State Route 46. The Wasco General Plan allows for the expansion of urban uses in Segment 1. Alternative 1 allows sufficient right-of-way for additional left-turn lanes, traffic signals, sidewalks and other improvements needed to support planned growth. Alternative 1 requires the least amount of new right-of-way (16.5 to 22.5 meters [54 to 74 feet]) and would avoid acquisition and relocation of the substation at the Wasco State Prison.

The Final Relocation Impact Statement prepared for the project indicates that one single-family residence and one business would be eligible for the Relocation Assistance Program.

West of Scofield Avenue, the highway would transition from a conventional highway to a rural expressway.

Build Alternative [Segment 2 - Commercial District]

Alternative 9b is the preferred alternative for this segment of the project. This alternative incorporates the greatest number of features designed to increase pedestrian safety and allows the greatest amount of space for them (12.2 meters [40 feet]). Even though this alternative may require more full acquisitions of property than the other build alternatives under consideration, the difference is small and there is flexibility, if necessary, to decrease the sidewalk width at spot locations from 3 meters (10 feet) to 1.5 meters (5 feet) to preserve structures and off-street parking.

The Final Relocation Impact Statement indicates that one single-family residence and five businesses would be eligible for the Relocation Assistance Program.

Build Alternative [Segment 3 - Railroad Underpass]

Alternative 11a is the preferred alternative for this segment of the project. This alternative would result in the fewest (two) full property acquisitions. By constructing an underpass instead of an overpass, this alternative would also maintain the visual context of the community and the surrounding area.

The Final Relocation Impact Statement indicates that two industrial uses would be eligible for the Relocation Assistance Program.

1.3.5 Alternatives Considered and Withdrawn

During the alternative development process, the project development team withdrew nine alternatives in Segment 2 and two alternatives in Segment 3 from further consideration.

1.3.5.1 Build Alternatives [Segment 2 - Commercial District]

Alternative 4

Alternative 4 would construct a four-lane conventional highway within the existing 24.4-meter (80-foot) right-of-way. This alternative includes four 3.6-meter (12-foot) lanes, a 3.6-meter (12-foot) restricted left-turn lane, 1.5-meter (5-foot) outside

shoulders and 1.5-meter (5-foot) sidewalks. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue. This alternative would not allow any on-street parking.

Alternative 4 was withdrawn because it does not meet the purpose and need of the project. This alternative would have substandard shoulders, remove on-street parking and would create conflicts for left-turns by using a continuous center turn lane.

Alternative 5a

Alternative 5a would construct a four-lane conventional highway. The existing highway would be widened to the north 1.8 meters (6 feet). There would be four 3.6-meter (12-foot) lanes, a 3.6-meter (12-foot) restricted left-turn lane and 2.4-meter (8-foot) outside shoulders. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue. A 1.5-meter (5-foot) sidewalk would be constructed.

Alternative 5a was withdrawn because it does not meet the purpose and need of the project. This alternative would not improve pedestrian safety because it has a small median and no sidewalks. This alternative would not remove traffic conflicts because it has a continuous center turn lane for left-turns.

Alternative 5b

Alternative 5b would construct a four-lane conventional highway. The existing highway would be widened symmetrically 1.8 meters (6 feet). There would be four 3.6-meter (12-foot) lanes, a 3.6-meter (12-foot) restricted left-turn lane and 2.4-meter (8-foot) outside shoulders. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue. A 1.5-meter (5-foot) sidewalk would be constructed.

Alternative 5b was withdrawn because it does not meet the purpose and need of the project. This alternative would not improve pedestrian safety because it has a small median and no sidewalks. This alternative would not remove traffic conflicts because it has a continuous center turn lane for left-turns.

Alternative 6a

Alternative 6a would construct a four-lane conventional highway. The existing highway would be widened to the north 3 meters (10 feet). There would be four 3.6-meter (12-foot) lanes, a 3.6-meter (12-foot) raised center median, 3.6-meter (12-foot) left-turn lanes at selected intersections, 0.6-meter (2-foot) inside shoulders and 2.4-meter (8-foot) outside shoulders. A traffic signal would be installed at the intersection

of State Route 46 and Griffith Avenue. A 1.5-meter (5-foot) sidewalk would also be constructed.

Alternative 6a was withdrawn because right-of-way impacts would be greater on the north side of State Route 46 than if the improvements were constructed symmetrically. Caltrans owns a 4.6-meter (15-foot) easement across 15 of the 38 parcels between Palm Avenue and “F” Street (State Route 43-South) on the south side of State Route 46, but only 3 of the 19 parcels on the north side of the highway. In addition, between Central and Palm avenues where new development is occurring, the highway has been constructed symmetrically.

Alternative 7a

Alternative 7a would construct a four-lane conventional highway. The existing highway would be widened to the north 4.2 meters (14 feet). There would be four 3.6-meter (12-foot) lanes, a 4.8-meter (16-foot) raised center median including a 1.2-meter (4-foot) pedestrian refuge, 3.6-meter (12-foot) left-turn lanes at selected intersections, 0.6-meter (2-foot) inside shoulders and 2.4-meter (8-foot) outside shoulders. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue. A 1.5-meter (5-foot) sidewalk would be constructed.

Alternative 7a was withdrawn because right-of-way impacts would be greater on the north side of State Route 46 than if the improvements were constructed symmetrically. Caltrans owns a 4.6-meter (15-foot) easement across 15 of the 38 parcels between Palm Avenue and “F” Street (State Route 43-South) on the south side of State Route 46, but only 3 of the 19 parcels on the north side of the highway. In addition, between Central and Palm avenues where new development is occurring, the highway has been constructed symmetrically.

Alternative 8a

Alternative 8a would construct a four-lane conventional highway. The existing highway would be widened to the north 4.8 meters (16 feet). There would be four 3.6-meter (12-foot) lanes, a 3.6-meter (12-foot) raised center median, 3.6-meter (12-foot) left-turn lanes at selected intersections, 0.6-meter (2-foot) inside shoulders and 2.4-meter (8-foot) outside shoulders. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue. A 2.4-meter (8-foot) sidewalk would also be constructed.

Alternative 8a was withdrawn because right-of-way impacts would be greater on the north side of State Route 46 than if the improvements were constructed

symmetrically. Caltrans owns a 4.6-meter (15-foot) easement across 15 of the 38 parcels between Palm Avenue and “F” Street (State Route 43-South) on the south side of State Route 46, but only 3 of the 19 parcels on the north side of the highway. In addition, the highway has been constructed symmetrically between Central and Palm avenues where new development is occurring.

Alternative 9a

Alternative 9a would construct a four-lane conventional highway. The existing highway would be widened to the north 6 meters (20 feet). There would be four 3.6-meter (12-foot) lanes, a 4.8-meter (16-foot) raised center median including a 1.2-meter (4-foot) pedestrian refuge, 3.6-meter (12-foot) left-turn lanes at selected intersections, 0.6-meter (2-foot) inside shoulders and 2.4-meter (8-foot) outside shoulders. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue. A 2.4-meter (8-foot) sidewalk would also be constructed.

Alternative 9a was withdrawn because right-of-way impacts would be greater on the north side of State Route 46 than if the improvements were constructed symmetrically. Caltrans owns a 4.6-meter (15-foot) easement across 15 of the 38 parcels between Palm Avenue and “F” Street (State Route 43-South) on the south side of State Route 46, but only 3 of the 19 parcels on the north side of the highway. In addition, the highway has been constructed symmetrically between Central and Palm avenues where new development is occurring.

Alternative 10a

Alternative 10a would construct a four-lane conventional highway. The existing highway would be widened to the north 9.1 meters (30 feet). There would be four 3.6-meter (12-foot) lanes, a 4.8-meter (16-foot) raised center median including a 1.2-meter (4-foot) pedestrian refuge, 3.6-meter (12-foot) left-turn lanes at selected intersections, 0.6-meter (2-foot) inside shoulders and 2.4-meter (8-foot) outside shoulders. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue. A 2.4-meter (8-foot) sidewalk and a 1.5-meter (5-foot) side planting area would be constructed.

Alternative 10a was withdrawn because of the potential high number of full acquisitions. In addition, this alternative would require the City of Wasco to maintain the landscaping improvements.

Alternative 10b

This alternative would construct a four-lane conventional highway. The existing highway would be widened symmetrically 9.1 meters (30 feet). There would be four 3.6-meter (12-foot) lanes, a 4.8-meter (16-foot) raised center median including a 1.2-meter (4-foot) pedestrian refuge, 3.6-meter (12-foot) left-turn lanes at selected intersections, 0.6-meter (2-foot) inside shoulders and 2.4-meter (8-foot) outside shoulders. A traffic signal would be installed at the intersection of State Route 46 and Griffith Avenue. A 2.4-meter (8-foot) sidewalk and a 1.5-meter (5-foot) side planting area would also be constructed.

Alternative 10b was withdrawn because of the potential high number of full acquisitions. In addition, this alternative would also require the City of Wasco to maintain the landscaping improvements.

1.3.5.2 Build Alternatives [Segment 3 - Railroad Underpass]

Alternative 12b

Alternative 12b would remove the existing railroad underpass and replace it with an overpass. The existing highway, currently 30.5 meters (100 feet) wide, would be widened symmetrically. This alternative requires additional right-of-way to accommodate the fill slopes required for the structure. This alternative would be 72 meters (236 feet) at its widest point. The new overpass would have four 3.6-meter (12-foot) lanes, 2.4-meter (8-foot) outside shoulders, and be divided by 3.6 meters (12-feet), which would accommodate two 1.5-meter (5-foot) inside shoulders and a median barrier. The median barrier would be either a concrete barrier or metal beam guardrail. A traffic signal would be installed at the intersection of State Route 46 and “J” Street (State Route 43-North). A 1.5-meter (5-foot) sidewalk would also be constructed.

This alternative was withdrawn because it poses major impacts to commercial and industrial buildings on the north side of the road and property near the railroad crossing. The cut, and especially the fill slopes required by the increased height requirements to cross over the railroad tracks, could require total acquisition of the businesses that abut State Route 46 at this location.

Alternative 13

Alternative 13 would remove the existing railroad underpass and replace it with a viaduct. The new viaduct would be approximately 200.5 meters (657.8 feet) long. It would have four 3.6-meter (12-foot) lanes, 2.4-meter (8-foot) outside shoulders, and

be divided by 3.6 meters (12 feet), which would accommodate two 1.5-meter (5-foot) inside shoulders and a median barrier. The median barrier would be either a concrete barrier or metal beam guardrail. A traffic signal would be installed at the intersection of State Route 46 and “J” Street (State Route 43-North). A 1.5-meter (5-foot) sidewalk would also be constructed.

This alternative was withdrawn because the cost of the viaduct and required retaining wall would be high (\$7.8 million) in comparison to the cost of the right-of-way (\$1.2 million) required for this alternative.

Transportation Systems Management

A transportation systems management alternative includes those activities that maximize the efficiency of the present system, such as ridesharing, high-occupancy vehicle lanes and optimal timing of traffic signals. In rural areas, transportation systems management may include reconstruction or rehabilitation of the existing roadway.

This project includes the installation of left-turn lanes at selected intersections and traffic signals at the intersection of State Route 46 with Griffith Avenue and “J” Street (State Route 43-North). A median or median barrier would be constructed the entire length of the project.

No transportation systems management alternative would meet the purpose and need that has been identified for this project. Due to the composition and type of traffic using State Route 46, transportation systems management would not substantially improve Level of Service or safety.

For mass transit, Kern Regional Transit provides bus service four times daily via the North Kern Express to the cities of Delano, McFarland, Wasco, Shafter and Bakersfield. In Bakersfield, passengers can connect to Golden Empire Transit for service within metropolitan Bakersfield. The City of Wasco operates Wasco Transit, which provides dial-a-ride service within the city limits.

Mass transit alternatives would not meet the purpose and need that has been identified for this project. Due to the composition and type of traffic using State Route 46, mass transit would not substantially improve Level of Service or safety. However, improvements to State Route 46 should improve safety and service for individuals using mass transit.

1.4 Permits and Approvals Needed

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

Table 1.5 Permits Needed

Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species	The Biological Opinion was received from the U.S. Fish and Wildlife Service on January 18, 2006
San Joaquin Valley Air Pollution Control District	Dust Control Plan	Dust Control Plan to be developed during the Plans, Specifications and Estimates phase of the project
San Joaquin Valley Air Pollution Control District	National Emission Standard for Hazardous Air Pollutants Permit	Permit to be obtained by the contractor prior to start of construction
City of Wasco	Maintenance Agreement for Storm Water Drainage	Maintenance Agreement to be developed during the Plans, Specifications and Estimates phase of the project



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

This chapter explains the impacts that 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 and potential impacts from each of the alternatives.

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

- **Parks and Recreation**—The Valley Rose Golf Course, owned by the City of Wasco, lies on the north side of State Route 46. All of the alternatives proposed for Segment 1 would widen the highway to the south so that no right-of-way would be needed from the golf course, and the centerline of noise would be moved away from the golf course. (Field review conducted September 25, 2002) The City of Wasco indicated that the property was in foreclosure and would be sold at public auction. The judge issued a writ of sale from the Kern County Superior Court, and the property was purchased by a limited partnership on August 8, 2006.
- **Farmlands**—The proposed project would take slivers of land off of the existing agricultural parcels. A Farmland Conversion Impact Rating was completed for all alternatives in Segments 1 and 2 in consultation with the Natural Resources Conservation Service (see Appendix E). The project would permanently convert up to 12.34 hectares (30.51 acres) of prime farmland in Segment 1 and up to 0.89 hectares (2.19 acres) in Segment 2. On a scale of 260 points, the Farmland Conversion Impact Ratings are 115 for Segment 1 and 95 for Segment 2. Project farmland conversion ratings below 160 are not afforded increasingly higher levels of consideration for farmland protection.
- **Cultural Resources**—There are no historical properties or archaeological sites in the project area (Historic Property Survey Report). The State Historic

Preservation Officer concurred with Caltrans' finding that there are no historical properties or archaeological sites in the project area. (See concurrence letter in Appendix C.) A cemetery, owned by Public Cemetery District Number 1, lies on the north side of State Route 46. There would not be any direct impacts to the cemetery. All of the alternatives proposed for Segment 1 would widen the highway to the south so that no right-of-way would be needed from the cemetery. The Historic Property Survey Report determined that the cemetery is not eligible for the National Register of Historic Places. Since the improvements to State Route 46 would be constructed to the south, the noise would be reduced for any build alternative. (Field review conducted September 25, 2002)

- Hydrology and Floodplain—The project would not constitute a longitudinal encroachment or significant encroachment, or support incompatible floodplain development (Location Hydraulic Study).
- Geology/Soils/Seismic/Topography—None in project area (Paleontology Study).
- Plant Species—None in project area (field survey for the Natural Environment Study conducted May 5, 2003).
- Wetlands and other Waters—None in project area (Natural Environment Study).

Environmental impacts reported in this Initial Study/Environmental Assessment are based on technical studies conducted for the project. The studies are available for review at the Caltrans District 6 office at 1352 W. Olive Avenue, Fresno, CA 93726.

2.1 Human Environment

2.1.1 Land Use

2.1.1.1 Existing and Future Land Use

Affected Environment

Wasco lies about 28 miles northwest of the City of Bakersfield in northern Kern County. Wasco had its beginnings as a water stop along the Santa Fe Railroad, now the Burlington Northern/Santa Fe Railroad, and began to grow with the establishment of the Fourth Home Extension Colony in 1907.

Agriculture has always been the primary economic base for Wasco and the surrounding area. Crops grown in the region include almonds, walnuts, alfalfa, carrots, cotton, potatoes, sugar beets and wheat. Grapevine stock for sale to growers as well as eggs are also produced in the area. Wasco is most known as a producer of

bare root roses for sale to nurseries. The community prides itself as the “Rose Capital of the Nation.”

A relatively recent (1991) addition to the economy of the community is the Wasco State Prison, operated by the California State Department of Corrections. The prison lies on the south side of State Route 46 between Scofield Avenue and the Jumper Avenue alignment.

The existing land use in the project area mirrors the three segments of the project (the western, middle, and eastern portions of the project area). Segment 1 covers the western portion of the project between the Jumper Avenue alignment and Magnolia Avenue. This area on the west side of Wasco is predominantly rural. The primary land use is agriculture. However, there are three other important uses within this segment of the project: a state prison, a golf course, and a cemetery.

Segment 2 covers the area between Magnolia Avenue and “F” Street (State Route 43-South). This area is mostly commercial. It contains a mix of commercial uses oriented to the local population and the traveling public. In addition, some single-family homes are scattered through the older eastern portion of the area. The area between Central and Magnolia avenues is still in agricultural use.

Segment 3 covers the area between “F” Street (State Route 43-South) and State Route 43-North. The main feature of this segment is an underpass of the Burlington Northern/Santa Fe Railroad. The surrounding uses in the area on the east side of Wasco are industrial.

The Wasco General Plan shows future land use changes planned in Segments 1 and 2. Segment 1 would include additional commercial land along the highway as well as additional urban and rural residential use to the north. The area south of the highway would continue in public or agricultural uses. For Segment 2, plans would extend residential and commercial uses to Western Avenue. Segment 3 would remain a heavy industrial area. Zoning reflects the land uses described above.

Impacts

Strips of land adjacent to State Route 46 would be acquired from about 129 parcels to construct the improvements to the highway. The project would acquire strips of land off the front of parcels adjacent to State Route 46 in Segment 1, but would not change the land use patterns.

The Final Relocation Impact Statement prepared for the project indicated that one single-family residence and one business would be eligible for the Relocation Assistance Program in Segment 1. There would also be acquisitions of strips of land off the front of parcels adjacent to State Route 46 in Segment 2. The Final Relocation Impact Statement indicated that one single-family residence and five businesses would be eligible for the Relocation Assistance Program in Segment 2. Caltrans owns dedicated easements for highway improvements across 22 of the parcels in Segment 2: seven on the north side of the highway and 15 on the south side. No agricultural operations in Segments 1 and 2 would be displaced, and the use of the remaining agricultural land would not be impaired.

In Segment 3, larger strips of land off the front of parcels adjacent to State Route 46 would be acquired for the construction of an underpass or an overpass. The Final Relocation Impact Statement indicated that two industrial uses would be eligible for the Relocation Assistance Program in this segment.

Avoidance, Minimization and/or Mitigation Measures

All land acquisitions are subject to the Uniform Relocation Act. The Uniform Relocation Act is a requirement of the project. Caltrans and the Federal Highway Administration must comply with all requirements of the act. Section 2.1.3.2 and Appendix D of this report discuss acquisition and compensation measures.

2.1.1.2 Consistency with State, Regional and Local Plans

Affected Environment

The Wasco General Plan and the Kern County General Plan dictate land use and circulation policy in the project area. The circulation element of the Wasco General Plan (2002) designates State Route 46 as an arterial within the project limits. Standards for arterial streets established by the general plan call for a typical right-of-way of 33.5 meters (110 feet).

The circulation element of the Kern County General Plan (2004) designates State Route 46 as a freeway/expressway. The minimum standard right-of-way established in the Kern County General Plan for a freeway/expressway is 33.5 meters (110 feet).

Both the Wasco General Plan and the Kern County General Plan envision State Route 46 as a four-lane highway. This project supports the land use and circulation elements of these plans.

The project is also included in the Kern Council of Governments' 2004 Regional Transportation Plan and the State Transportation Improvement Program. The State Route 46 Wasco 4-Lane Widening project is included in the approved 2004 Federal Transportation Plan and will be included in the updated 2006 Federal Transportation Improvement Program. Future funding is also shown in the Kern Council of Governments Destination 2030 Regional Transportation Plan over the 15-year planning period.

Impacts

The proposed project is consistent with local land use plans. Alternatives 2 and 3 would be built to an expressway standard, which would make it difficult for planned development to obtain access to State Route 46.

Avoidance, Minimization and/or Mitigation Measures

Frontage roads would be constructed on both sides of the highway where needed to provide access to adjoining parcels.

2.1.2 Growth

Regulatory Setting

The Council of Environmental Quality Regulations, which implements the 1969 National Environmental Policy Act, requires evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The Council of Environmental Quality Regulations, 40 Code of Federal Regulations 1508.8, refers to these consequences as secondary impacts. As elements of growth, secondary impacts may include changes in land use, economic vitality, and population density.

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

According to the U.S. Census Bureau, the population of Wasco in 1990 was 12,412. By 2000, the population had almost doubled—to 22,746. A large portion of the

increase was due to the annexation of the prison into the city. The 2000 U.S. Census indicated that the prison housed 6,201 inmates. The non-prison population, therefore, grew 33% from 1990 to 2000.

The current City of Wasco General Plan was approved in 2002. As a part of the city's general plan update process, a *General Plan Update Background Report* was completed in May 2002. Population projections in the background report indicated the non-prison population of Wasco would grow to 26,160 by 2025 and 29,550 by 2030.

Impacts

The proposed project is a response to current traffic conditions and projected traffic growth based on local plans and growth projections. It is not proposed to support unplanned development and is consistent with local and regional land use and transportation planning.

Avoidance, Minimization and/or Mitigation Measures

No mitigation would be required.

2.1.3 Community Impacts

2.1.3.1 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 for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 U.S.C. 4331(b)(2)]. The Federal Highway Administration, in its implementation of the National Environmental Policy Act [23 U.S.C. 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. If, however, 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

Wasco lies about 45 kilometers (28 miles) northwest of the City of Bakersfield. Agriculture and related services form the primary economic base of the community and the surrounding area. Crops grown in the area include almonds, grapes, and roses, and various row crops such as alfalfa, cotton, potatoes and vegetables. The Wasco State Prison is also a large employer in the community.

Historically, most of the development in Wasco has occurred south of State Route 46, centered around 7th Street. Some of the newer residential development in the community has occurred north of State Route 46, east of Griffith Avenue. This development is separated from the rest of the community by the highway. For motorists or residents coming from the area north of the highway, Griffith Avenue is the main road used to access the area south of the highway.

Major community facilities—including elementary, middle and high schools and government services—lie south of State Route 46. Most retail goods and services are also found south of the highway. An airport operated by Kern County lies north of the city at Palm and McCombs avenues.

Currently, all intersections within Segment 2 allow unrestricted turns and cross traffic along the highway. This causes a conflict between the regional traffic using State Route 46 and the urban traffic within the community.

The project would restrict access to State Route 46 to right-in and right-out turns only, at numerous mid-block intersections. Motorists wanting to cross or make left turns onto the highway would have to go to the intersections that have traffic signals.

Impacts

The Wasco 4-Lane Widening project conforms with the circulation element of the Wasco General Plan. The proposed project would reduce conflicting traffic movements, improve the movement of vehicles, and facilitate the movement of goods through the community. The project would improve pedestrian safety and access to goods and services and major community facilities for residents living north of State Route 46.

Avoidance, Minimization and/or Mitigation Measures

Installing a traffic signal at Griffith Avenue would improve the connection of a newer, isolated residential development north of State Route 46, with the main portion of the city south of the highway, where schools, government services, and retail goods and services are located. Creating a safe access point between the two portions of the city would effectively tie the community together. The City of Wasco may install the traffic signal before State Route 46 would be widened.

2.1.3.2 Relocations

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 the 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 F 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 U.S.C. 2000d, et seq.). See Appendix B for a copy of the Caltrans Title VI Policy Statement.

Affected Environment

Caltrans prepared a Draft Relocation Impact Report dated May 25, 2005, for this project. Caltrans prepared a Final Relocation Impact Statement dated July 3, 2006.

Segment 1 of the project covers the area between the Jumper Avenue alignment and Magnolia Avenue. The primary land use is agriculture, but the area also includes a state prison, golf course, and cemetery.

Segment 2 covers the area between Magnolia Avenue and “F” Street (State Route 43-South). This segment is mostly commercial, with single-family homes scattered through the older eastern portion of the area. The area between Central and Magnolia avenues is still in agricultural use.

Segment 3 covers the area between “F” Street (State Route 43-South) and State Route 43-North. The surrounding uses in the area are industrial.

Impacts

Segment 1 - Rural

Three alternatives are under consideration for Segment 1 of the project. Alternative 1 would widen State Route 46 16.5 to 22.5 meters (54 to 74 feet) to the south.

Alternative 2 would widen the existing highway to the south 27 to 33 meters (89 to 109 feet), and Alternative 3 would widen the highway to the south 41 meters (135 feet).

Each of the three build alternatives requires acquiring strips of land from the 12 parcels adjoining State Route 46 on the south side of the highway and from one parcel on the north side. Alternative 1 would result in the displacement of one business and one single-family residence. Alternatives 2 and 3 would each result in four displacements. In addition to the previously mentioned properties, these alternatives would also require the displacement of one single-family residence and an electrical substation that supplies power for the Wasco State Prison. See Table 2.1 and Figures 2-1a, 2-1b and 2-1c.

The acquisition of right-of-way in Segment 1 is needed to improve the safety of State Route 46 by constructing additional travel lanes, left-turn lanes at Scofield, Leonard, Western and Magnolia avenues and a center median. The increased right-of-way would also provide room to construct drainage systems for each alternative and to provide flatter slopes (1:6) to accommodate safety and revegetation.

Table 2.1 Potential Parcels Eligible for the Relocation Assistance Program in Segment 1

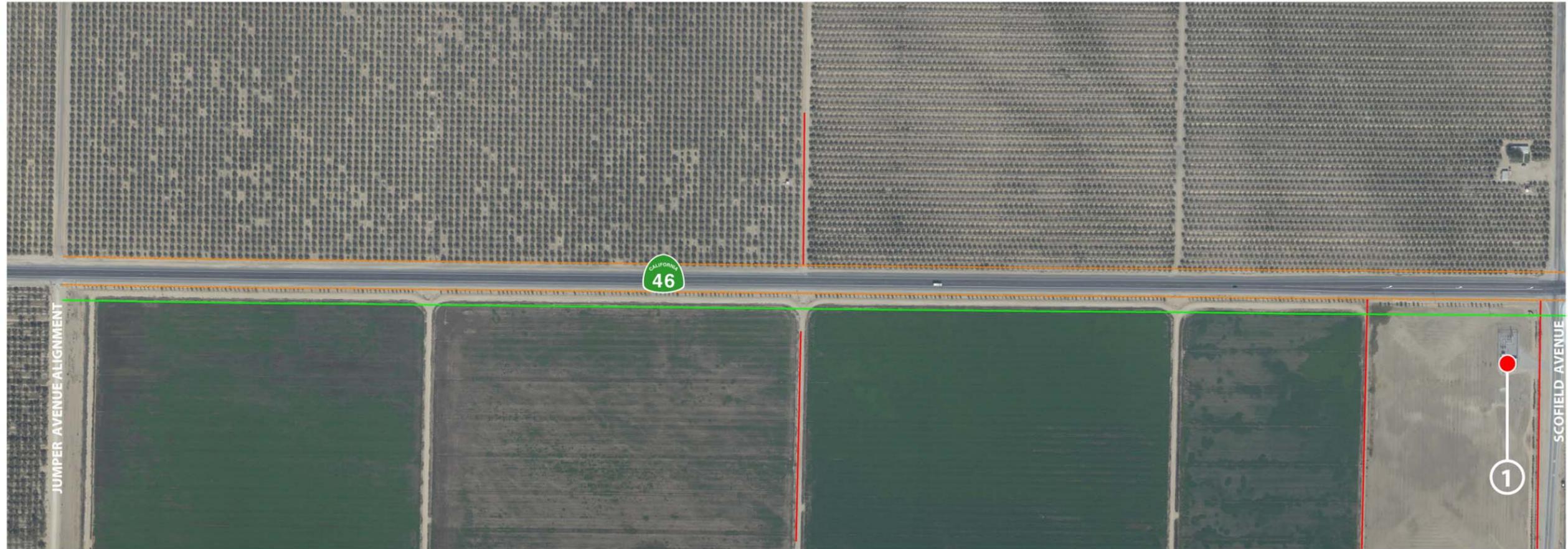
Number	Use of Parcel/ Assessor Parcel Number	Alternative 1 (Preferred Alternative)	Alternative 2	Alternative 3
1	Electrical substation 487-080-09	No	Yes	Yes
2	Shop and storage 487-140-01	Yes	Yes	Yes
3	Single-family residence 487-140-03	Yes	Yes	Yes
4	Single-family residence 487-060-02	No	Yes	Yes



Potential Relocations - Project Segment 1 - Jumper Avenue Alignment to Scofield Avenue

Wasco 4-Lane

06-KER 46 • EA 06-418800 • KP 74.03/82.43 • PM 46.00/51.22



NOT TO SCALE



The numbers on the map depict potential relocations described in Table 2.1

- Existing Right Of Way
- Segment 1 (54 Ft)
- Property Line



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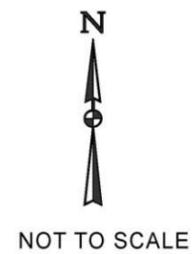
Figure 2-1a. Potential Relocations-Project Segment 1-Jumper Avenue Alignment to Scofield Avenue



Potential Relocations - Project Segment 1 - Scofield Avenue to Leonard Avenue

Wasco 4-Lane

06-KER 46 • EA 06-418800 • KP 74.03/82.43 • PM 46.00/51.22



① The numbers on the map depict potential relocations described in Table 2.1

- Existing Right Of Way
- Segment 1 (54 Ft)
- Property Line



Figure 2-1b. Potential Relocations-Project Segment 1-Scofield Avenue to Leonard Avenue



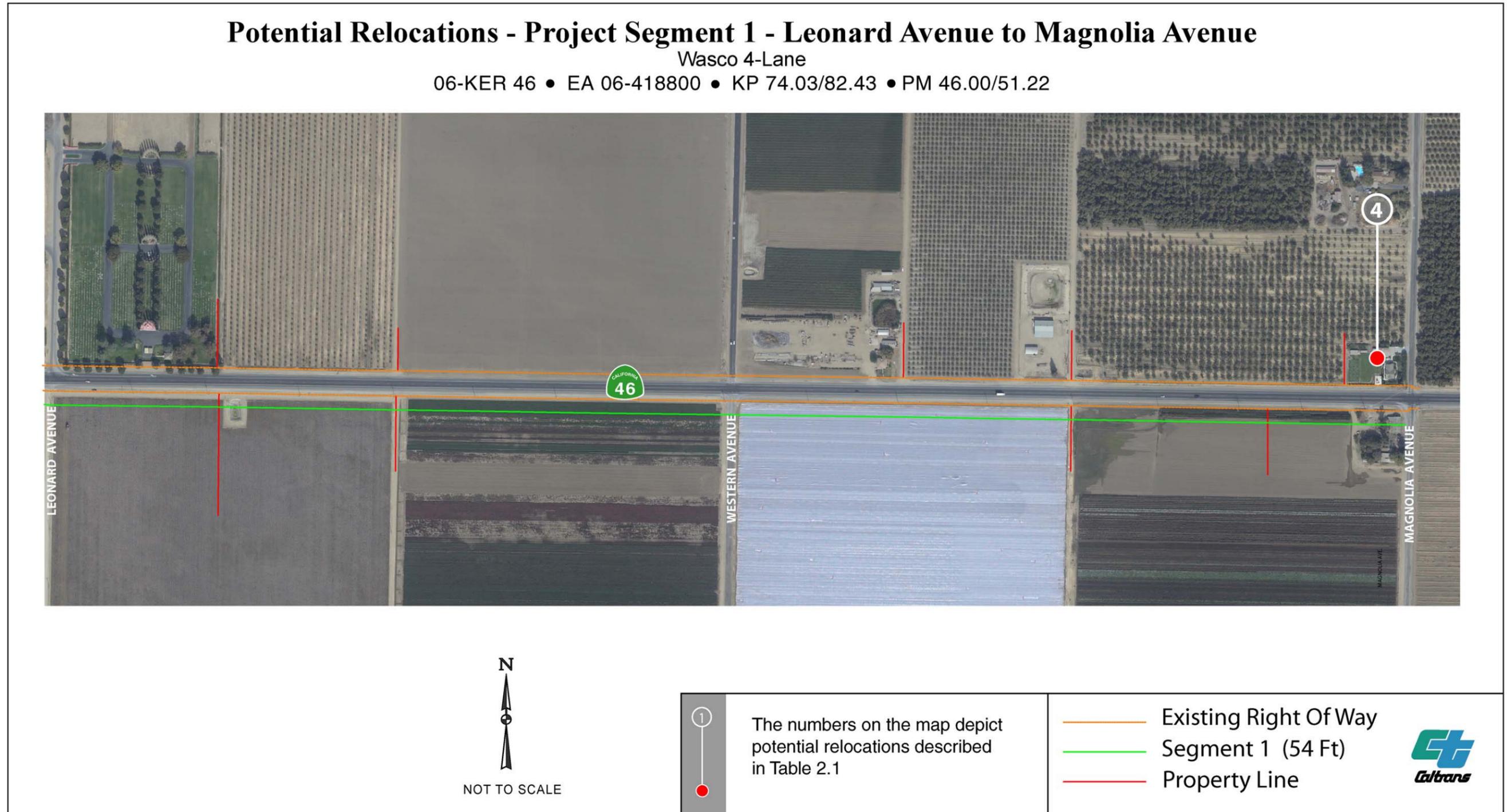


Figure 2-1c. Potential Relocations-Project Segment 1-Leonard Avenue to Magnolia Avenue



Segment 2 - Commercial District

Four build alternatives are being considered for Segment 2 of the project. Each of the alternatives would widen the existing highway symmetrically. Alternative 6b would widen the highway 3 meters (10 feet). Alternative 7b would widen the highway 4.2 meters (14 feet). Alternative 8b would widen the highway 4.8 meters (16 feet). Alternative 9b would widen the highway 8.5 meters (28 feet).

Within Segment 2, the area west of Central Avenue is still in agricultural use. The area east of Central Avenue is primarily commercial with a few scattered older homes. The City of Wasco indicated that on January 31, 2005, 58 businesses located along State Route 46 had paid a license tax to operate in the community.

Each of the four build alternatives would require acquiring strips of land off the front of 67 of the 89 adjoining parcels. Caltrans owns existing 4.6-meter (15-foot) easements on the remaining 22 parcels. Alternatives 6b and 7b would not result in any displacements from any parcel. Alternative 8b would displace one café and a motel/café complex, a radiator shop and a tractor dealership, including the repair shop. Alternative 9b would displace one home, one café, one motel/café complex, a radiator shop and a tractor dealership, including the repair shop. See Table 2.2 and Figures 2-2a and 2-2b.

The acquisition of right-of-way in Segment 2 is needed to improve the safety and operation of this portion of State Route 46 by constructing additional travel lanes, left-turn lanes at selected intersections, a raised center median, inside and outside shoulders, and sidewalks.

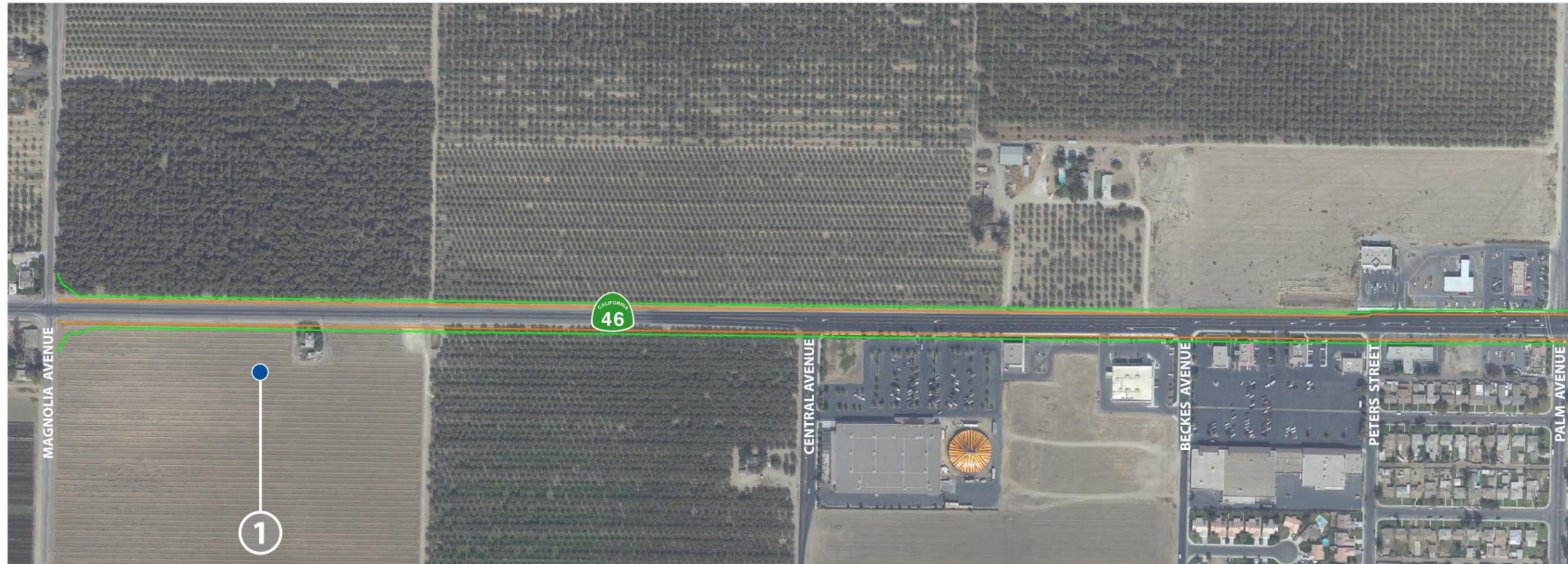
**Table 2.2 Potential Parcels Eligible for the Relocation Assistance Program in
Segment 2**

Number	Use of Parcel/ Assessor Parcel Number	Alternative 6b	Alternative 7b	Alternative 8b	Alternative 9b (Preferred Alternative)
1	Single-family residence 488-010-01	No	No	No	Yes
2	Café 029-081-29	No	No	Yes	Yes
3a	Motel office 487-213-23	No	No	Yes	Yes
3b	Café 487-213-23	No	No	Yes	Yes
4	Shop and office 487-020-04	No	No	Yes	Yes
5	Bar and radiator shop 030-191-06	No	No	Yes	Yes

Potential Relocations - Project Segment 2 - Magnolia Avenue to Palm Avenue

Wasco 4-Lane

06-KER 46 • EA 06-418800 • KP 74.03/82.43 • PM 46.00/51.22



NOT TO SCALE



The numbers on the map depict potential relocations described in the first column of Table 2.2

- Existing Right Of Way
- Segment 2 (28 Ft)
- Property Line



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EEB.RAM.09_18_06

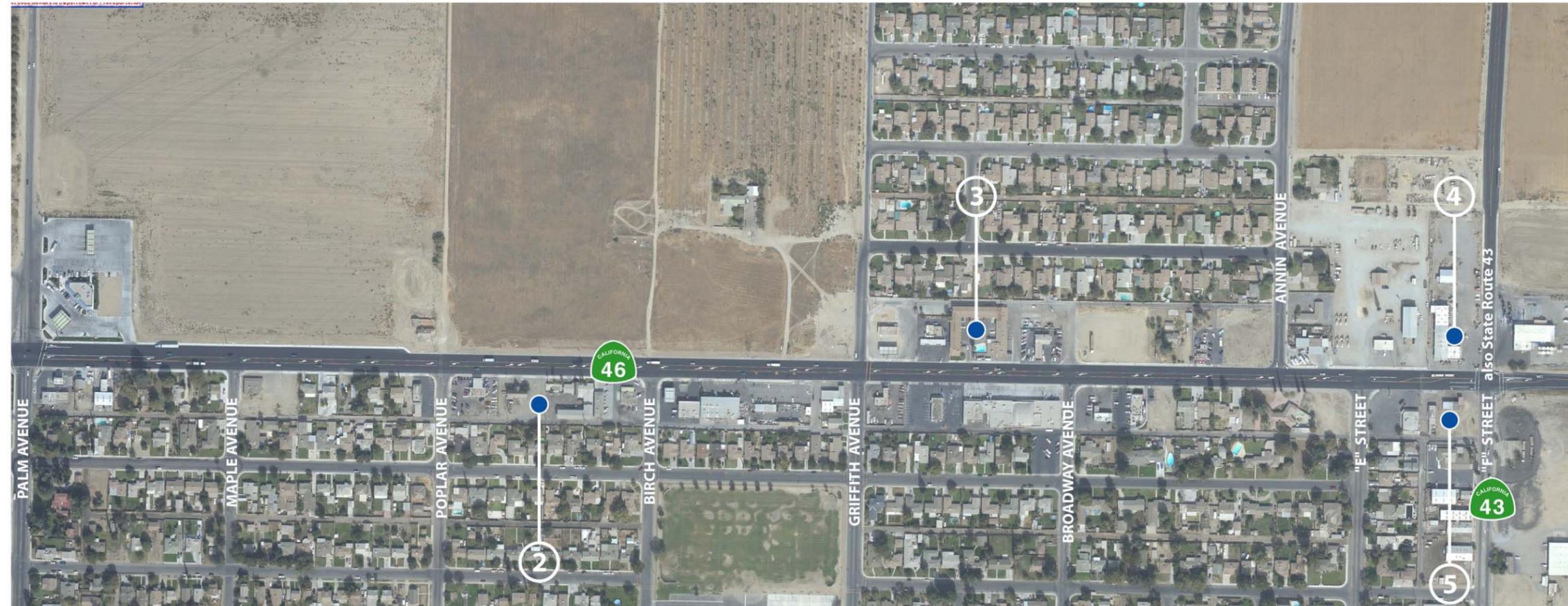
Figure 2-2a. Potential Relocations-Project Segment 2-Magnolia Avenue to Palm Avenue



Potential Relocations - Project Segment 2 - Palm Avenue to "F" Street

Wasco 4-Lane

06-KER 46 • EA 06-418800 • KP 74.03/82.43 • PM 46.00/51.22



NOT TO SCALE



The numbers on the map depict potential relocations described in Table 2.2



Existing Right Of Way
Segment 2 (28 Ft)
Property Line



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EEB.DJE.10_04_06

Figure 2-2b. Potential Relocations-Project Segment 2-Palm Avenue to "F" Street



Segment 3 - Railroad Underpass

Three build alternatives are being considered for Segment 3 of the project. Alternative 11a would widen the existing railroad underpass to the south. This alternative would be 64 meters (210 feet) at its widest point. Alternative 11b would widen the existing railroad underpass symmetrically. This alternative would be 64 meters (210 feet) at its widest point. Alternative 12a would remove the existing underpass and replace it with an overpass widened to the south. This alternative would be 72 meters (236 feet) at its widest point.

Each of the build alternatives requires acquiring strips of land off the front of 17 parcels adjacent to State Route 46. Alternative 11a would require the displacement of two storage buildings on two parcels. Alternatives 11b would displace three businesses and Alternative 12a would displace two storage buildings on two parcels. See Table 2.3 and Figure 2-3.

The acquisition of right-of-way in Segment 3 is needed to improve the safety and operation of this portion of State Route 46 by constructing additional travel lanes, left-turn lanes, inside and outside shoulders and sidewalks. A new pump plant would be built to provide drainage for the underpass.

Table 2.3 Potential Parcels Eligible for the Relocation Assistance Program in Segment 3

Number	Use of Parcel/ Assessor Parcel Number	Alternative 11a (Preferred Alternative)	Alternative 11b	Alternative 12a
1	Industrial building 072-050-27	Yes	Yes	Yes
2	Storage building 030-020-02	Yes	Yes	Yes
3	Storage building 030-020-03	No	Yes	No

Avoidance, Minimization and/or Mitigation Measures

Caltrans would try to reduce the number of full property acquisitions during the final design of the project. The project is being planned with flexibility in all alternatives under consideration in Segment 2 to allow the sidewalk width to be reduced to 1.5 meters (5 feet) to avoid the full acquisition of any existing home or business, if

possible. A 1.5-meter (5-foot) sidewalk meets the requirements of the Americans With Disabilities Act. Design exceptions could also be requested.

Caltrans would also work with property owners to reconfigure their businesses on the existing parcels so that full acquisition is not needed. This option would work well on the north side of State Route 46 where the existing lots are deep.

Use of these measures would substantially reduce the number of full takes necessary for Alternative 8b or 9b.

The Draft Relocation Impact Report concluded that there would be replacement housing available in the City of Wasco for sale and rent that would be comparable in terms of amenities, public utilities, and accessibility to public services, transportation, and shopping for households that might be displaced by the project. There are no special or substantial relocation problems associated with this project.

The Draft Relocation Impact Report concluded that there would be adequate replacement parcels along State Route 46 in the City of Wasco available for commercial use.

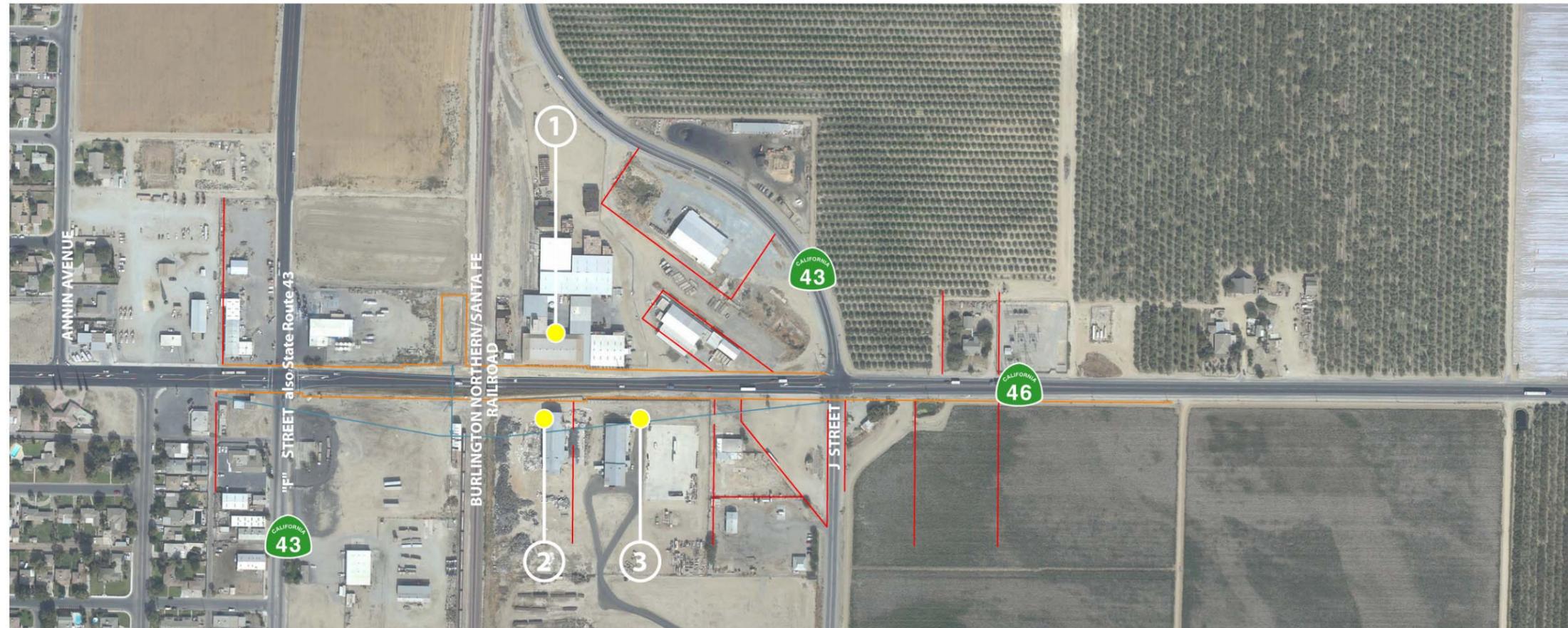
Funding would be available to relocate or re-establish any home or business affected by the project. The Relocation Payment Program would help eligible residential occupants by paying certain costs and expenses necessary for or incidental to the purchase or rental of replacement housing and actual reasonable moving expenses to a new location within 50 miles of the displacement property.

The Non-Residential 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 would provide current lists of properties offered for sale or rent, suitable for a particular business' specific needs. There are a number of vacant commercial properties along and adjacent to State Route 46 in the project area.

Potential Relocations - Project Segment 3 - Just West of "F" Street to "J" Street

Wasco 4-Lane

06-KER 46 • EA 06-418800 • KP 74.03/82.43 • PM 46.00/51.22



NOT TO SCALE



The numbers on the map depict potential relocations described in Table 2.3

- Existing Right Of Way
- Segment 3 (210 Ft)
- Property Line



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Figure 2-3. Potential Relocations-Project Segment 3- Just West of "F" Street to "J" Street



Agricultural parcels would be compensated for severance damages to the remaining parcel, which would be measured by any decrease in the market value of the remainder. If farm and business displacements incur increased costs as a result of being relocated, they would be given the opportunity to file a claim for loss of goodwill. Any person (individual, family, corporation, partnership, or association) who moves from real property or moves personal property from real property as a result of the acquisition of the real property, or is required to relocate as a result of a written notice from the California Department of Transportation from the real property required for a transportation project is eligible for “Relocation Assistance.”

All activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (see Appendices B and F). The Uniform Relocation Assistance and Real Property Acquisitions Policies Act is a requirement of the project. Caltrans and the Federal Highway Administration must comply with all requirements of the act.

The Final Relocation Impact Statement studied the impact of the Preferred Alternative and concluded that relocation impacts within the project area would be noncomplex and that adequate resources would be available for displacees. The Final Relocation Impact Statement indicated that, for the Preferred Alternative, nine parcels would be eligible for the Relocation Assistance Program.

2.1.3.3 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. 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 based on the Department of Health and Human Services poverty guidelines. For the year 2000, the guidelines define low income as \$18,392 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 shown in its Title VI Policy Statement, signed by the director (see Appendix B).

Affected Environment

The project has been divided into three unique segments to meet the engineering challenges presented by the project. Segment 1 is rural, with most of the area in agricultural use. There are a few scattered homes in the immediate vicinity of State Route 46. The area also contains the Wasco State Prison, which houses 6,201 inmates, according to the 2000 Census. Prison inmates are not counted as part of the general population for purposes of considering environmental justice. The population of Segment 1 without the inmate population is 74.

Segment 2 is mostly commercial, with scattered homes through the older eastern portion of the area. The western portion of Segment 2 is still in agriculture with a few scattered homes in the area. The population of Segment 2 is 573.

Segment 3 is an industrial area that centers on the Burlington Northern/Santa Fe Railroad crossing. There are no homes in the immediate vicinity of State Route 46. The population of Segment 3 is nine.

The adjusted population of the entire project area is 656.

San Joaquin Valley communities may have a high percentage of Hispanics, an established minority population. The 2000 U.S. Census data, shown in Table 2.4, reported a large Hispanic population in Wasco (76.2%). In Kern County as a whole, the Hispanic population is 38.4%. The second largest ethnic group in Wasco is Whites (18.2%); in Kern County, Whites are the largest ethnic group (49.6%). All other ethnic groups together compose 5.6% of the population in Wasco and 12% of the population in Kern County. The project area has a lower percentage of Hispanics than Wasco as a whole, but still greater than the county percentage.

Table 2.4 Ethnicity Data

Ethnicity Data* (Census Bureau 2000)						
Ethnicity	Kern County		City of Wasco		Project Area	
	Population	%	Population	%	Population	%
Hispanic or Latino	251,330	38.4	11,481	76.2	421	64.2
White	325,341	49.6	2,739	18.2	161	24.5
Black – African-American	36,296	5.5	539	3.6	44	6.7
American Indian/Alaska Native	5,861	0.9	73	0.5	4	0.6
Asian	21,142	3.2	91	0.6	21	3.2
Native Hawaiian, etc.	717	0.1	13	0.1	0	0.0
Other	14,757	2.3	126	0.8	5	0.8
Total	655,444	100*	15,062	100*	656	100*

Source: U.S. Census Bureau, American FactFinder, Year 2000

* All figures have been adjusted to reflect the removal of the Wasco State Prison population from consideration

Poverty data from the 2000 U.S. Census indicate that the poverty levels of families and individuals for Wasco and Kern County are higher than average (see Table 2.5). Low income is based on the U.S. Department of Health and Human Services poverty guidelines. For the year 2000, the poverty threshold is \$18,392 for a family of four and \$9,183 for individuals. The poverty level for the project area (26%) is higher than for Kern County (20.8%), but is lower than for Wasco as a whole (27.5%).

The total population of the project area for the Percent Poverty Levels (see Table 2.5) is higher than the total population for ethnicity or age because the U.S. Census Bureau uses block groups for poverty data and blocks for ethnicity and age data. Block groups cover a larger geographic area than blocks and therefore encompass a larger population.

Table 2.5 Percent Poverty Levels

Poverty Status in 1999 (U.S. Census 2000)						
	Kern County		Wasco (city)		Project Area	
	Population	%	Population	%	Population	%
Below poverty level	130,949	20.8	4,126	27.5	2,489	26.0
At or above poverty level	499,822	79.2	10,864	72.5	7,083	74.0
Total	630,771	100	14,990	100	9,572	100

Source: U.S. Census Bureau, American FactFinder, Year 2000

Table 2.6 shows the age distribution of the population in the City of Wasco and the project area as compared to Kern County and the state as a whole. In 2000, 8.2% of the project area population was 65 years of age or older—lower than the average for the state (10.6%) and Kern County (9.4%), but slightly higher than for the City of Wasco (7.5%).

Table 2.6 Age Distribution

Age Data (U.S. Census 2000)								
Age Breakdown	California		Kern County		Wasco (city)		Project Area	
	Number	%	Number	%	Number	%	Number	%
Under age 18	9,249,813	27.3	211,363	32.2	5,820	38.6	232	35.4
Between 18 - 64	21,020,002	62.1	382,053	58.3	8,119	53.9	370	56.4
65 years and over	3,595,632	10.6	62,028	9.5	1,123	7.5	54	8.2
Total	33,865,447	100	655,444	100	15,062	100	656	100

Source: U.S. Census Bureau, Year 2000

Impacts

The proposed project would improve the operation and safety of the highway for both motorists and pedestrians. The project would also improve response times for emergency vehicles.

The project would improve community cohesion by installing a traffic signal at the intersection of State Route 46 with Griffith Avenue, allowing improved access for the northern portion of the community to goods and services located in the southern portion of the community. In this case, the traffic signal not only improves pedestrian and traffic safety, it creates community cohesion by linking an isolated residential area north of State Route 46 to the main part of the community that lies south of the highway. Creating a safe access point between the two parts of the city would effectively tie the community together.

As many as 13 homes and businesses could be located in the right-of-way required for the project. Two (an electrical substation that serves the prison, and a home) are owned by public institutions. Only one of the remaining homes or businesses is owned by individuals identified as members of a minority population.

Even though U.S. Census Bureau data indicate that the percentage of Hispanics living in the project area is greater than that for Kern County as a whole, it is less than the percentage of Hispanics living in the City of Wasco. The percentage of those living in poverty is also greater than in Kern County, but is less than the City of Wasco. The percentage of those over 65 years of age is lower than it is for Kern County but is less

than one percent (0.7%) higher than the percentage of those over 65 years of age in the City of Wasco as a whole. The percentage of Hispanic property owners whose homes and businesses may be affected by the project is less than that for Kern County as a whole, the City of Wasco, or the project area. Based on the above discussion and analysis, the build alternatives would not cause disproportionately high and adverse effects to any minority group, low-income population or the elderly per Executive Order 12898 regarding environmental justice.

Only a small number of residences would be affected by the project. For the Final Relocation Impact Report, Caltrans Right-of-Way personnel used current census data for Wasco to determine the makeup of family households. Each family/house would be contacted and interviewed about family makeup, at the start of the appraisal process. This information would be provided to the Acquisition Agent and Relocation Assistance Agent for the acquisition and relocation of parcels with existing residences and businesses.

No community groups or leaders at the public information meeting in 2001 or the public hearing in 2006 expressed any concerns about potential impacts of the project on any group in the community.

Avoidance, Minimization and/or Mitigation Measures

No measures would be required.

2.1.3.4 Parking

Affected Environment

Segment 2, from just west of Palm Avenue to “F” Street (State Route 43-South), is mostly commercial. It contains a mix of commercial uses (gas stations, restaurants, etc.) oriented to the local population and the traveling public. There are single-family homes scattered through the older eastern portion of the area. There is also a mix of off-street and on-street parking.

Parking is an issue only in the developed portion of Segment 2. Parking is not a concern in the rest of the project area. The area generally west of Palm Avenue is primarily in agricultural use. The few uses in the area that require parking have adequate off-street parking. On-street parking is not feasible in most of the area east of “F” Street (State Route 43-South) due to the Burlington Northern/Santa Fe Railroad underpass. The existing industrial uses in the area have adequate off-street parking.

Impacts

Caltrans completed a parking study on May 23, 2005. The parking study is an initial evaluation of the existing conditions for preliminary design. Any impacts to existing parking may change during the final design of the project.

A field review of the existing commercial off-street parking in Segment 2 was conducted to determine the number of parking stalls that could be affected by the project. The parking study concluded that Alternatives 6b (3-meter [10-foot] symmetrical widening), 7b (4.2-meter [14-foot] symmetrical widening) and 8b (4.8-meter [16-foot] symmetrical widening) would remove about 64 existing commercial parking stalls. The Preferred Alternative, Alternative 9b (8.5-meter [28-foot] symmetrical widening), could remove about 92 existing commercial parking stalls. The discussion below indicates that many of these stalls can be preserved onsite. On-street parking would be preserved in areas that meet Caltrans safety standards.

South Side of State Route 46

Agri Business Center: The front 12 diagonal parking stalls would be affected by all build alternatives. Alternatives 6b, 7b and 8b may provide flatter-angled diagonal parking (about eight parking stalls). Alternative 9b may provide parallel parking (five parking stalls). An adjacent parcel, Assessor Parcel Number 488-071-18, is a potential acquisition to provide 24 additional parking spaces.

Burger King: Alternative 9b may eliminate the drive-thru, and nine northerly perpendicular parking stalls would be affected. The affected northerly parking stalls would have to be reconfigured to diagonal parking (six parking stalls). Additional parking spaces on the west side of the property are available. An adjacent parcel, Assessor Parcel Number 488-071-16, is a potential acquisition to provide 24 additional parking stalls.

La Cabanita Mexican Restaurant and Motel Cinderella: Right-of-way is needed for all alternatives. Four front perpendicular parking stalls would be eliminated. There are 10 potential parking spaces at the back of La Cabanita Mexican Restaurant.

BBQ Beef Fastfood: Alternative 9b would require five perpendicular parking stalls to be reconfigured to three diagonal parking stalls. There are 10 potential parking stalls at the back of BBQ Beef Fastfood.

Floyd General Store: Alternative 9b affects the front 15 perpendicular parking stalls, which can be reconfigured to diagonal parking (10 parking stalls).

Town and Country Liquors/Four Gas Pumps: All alternatives would eliminate the front five parking stalls. One stall can be added to the front. Two new parking stalls may be available at the back of the parcel.

Cingular, Napa, Zagoras Pizza, and National Market: All of the proposed alternatives would eliminate 18 front parking stalls. Parking should be reconfigured to parallel parking (seven parking stalls). There are 40 additional existing parking stalls at the back of National Market.

Subway, KFC, and Residential Homes: Right-of-way is not needed. There is an existing 4.6-meter (15-foot) easement. Four stalls would be lost at the Subway Sandwich shop.

B&L Radiator Shop: All alternatives would eliminate four front parking stalls. There are 10 new potential parking spaces at the back of the parcel.

North Side of State Route 46

San Joaquin Tractor Company: All alternatives would eliminate the eight front diagonal parking stalls. Parallel parking is an option, and 15 existing parking spaces are available on the east side of the property. The existing parking lot can be reconfigured to reclaim the lost stalls.

Frosty King: All alternatives would eliminate the outdoor seating area and four diagonal parking stalls. Three existing diagonal parking stalls could be maintained. There are 20 potential parking spaces at the back.

Corral Bar Motel and Wasco Car Connections: Due to the proximity of the structures to the proposed right-of-way, Alternative 9b may require complete property acquisition. Alternatives 6b, 7b, and 8b would lose two parking stalls on the east side of the property.

Avoidance, Minimization and/or Mitigation Measures

Parking would be evaluated during project design. The project is being planned with flexibility in all alternatives under consideration in Segment 2 to allow the sidewalk width to be reduced to 1.5 meters (5 feet) to avoid the full acquisition of any existing home or business, if possible. A 1.5-meter (5-foot) sidewalk meets the requirements of the Americans With Disabilities Act. Design exceptions could also be requested.

Changing existing commercial parking to diagonal or parallel parking, using extra parking spaces on existing properties, and acquiring adjacent parcels would mitigate the loss of existing commercial off-street parking.

2.1.4 Utilities/Emergency Services

Affected Environment

The Caltrans Right-of-Way Division prepared a report (dated December 18, 2003) of Utilities Found But Not Verified. The report indicated there are water, sewer, gas, electric power, telephone, and cable television lines as well as fiber cable that may need to be relocated.

There are no emergency facilities located along State Route 46. Emergency services for Wasco are provided by a number of agencies. The Kern County Fire Department provides service from its station at 2424 Seventh Street, between Beckes and Palm avenues. Additional fire service is provided from a station at the Wasco State Prison. Police services are provided under contract with Kern County from the Kern County Sheriff's substation on "F" Street (State Route 43-South) between 7th and 8th streets. Kern County Fire Department and Kern Ambulance Service provide emergency medical service. Level II trauma care is available at the Kern Medical Center in Bakersfield. National Health Systems at 7th and Palm and the Delano Regional Medical Center provide local medical care through clinics.

Impacts

Emergency response times should be improved upon completion of the project. During construction, response times for emergency medical and fire services could be delayed for calls east of the Burlington Northern/Santa Fe Railroad because of the need to use the construction detour along "F," "J" and 6th streets or to go across 7th Street, through downtown to "J" Street.

Avoidance, Minimization and/or Mitigation Measures

Before construction, public utilities affected by the project would be relocated. During construction, one to two lanes of traffic in each direction of travel would remain open. Emergency vehicles would be given priority.

Scheduling construction work that would require lane closures during non-peak hours only would minimize traffic delay. Full highway closures would be allowed only when required for the safety of the motoring public and/or when there are no other feasible construction alternatives, in which case a well-marked detour route would be

provided for public use. Meetings with the railroad company, emergency services agencies and the local school district would be conducted during project design, before construction would start. These meetings would continue as needed throughout construction of the project.

2.1.5 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

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 (23 Code of Federal Regulations). 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 and the Federal Highway Administration are 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 would be provided to persons with disabilities.

Affected Environment

Caltrans prepared an Operational Analysis dated September 14, 2005. The analysis showed that State Route 46 currently operates at Level of Service D and without improvements would deteriorate to Level of Service E before the end of the 20-year design period, as shown in Table 2.7.

Table 2.7 Level of Service With and Without the Project

Segment	2002		2012		2022		2032	
	With Project	Without Project						
Segment 1	N/A	C	A	C	A	C	A	C
Segment 2	N/A	D	A	D	A	E	A	E
Segment 3	N/A	C	A	D	A	D	A	D

The analysis also indicated that, with the proposed improvements, this portion of State Route 46 would improve to Level of Service A on opening day and would remain at Level of Service A through the end of the 20-year design period in 2032.

Caltrans also prepared a Pedestrian Study dated March 17, 2003, for the project. There are no sidewalks in Segments 1 and 3. There are discontinuous sidewalks parallel to State Route 46 within Segment 2 of the project. The areas where sidewalks do not exist are primarily undeveloped parcels or are used for agriculture. The City of Wasco requires sidewalks to be installed when new development occurs.

On January 23, 2003, Caltrans staff conducted a field survey for the pedestrian study at the intersection of State Route 46 and Griffith Avenue. Griffith Avenue is a north-south two-lane city street. The intersection of Griffith Avenue and State Route 46 is controlled by stop signs on Griffith Avenue. There is a single marked crosswalk across the east leg of the intersection. Flashing beacons with "SCHOOL XING" signs are located in advance of the crosswalk for eastbound and westbound traffic. Also visible are yellow "SLOW SCHOOL XING" signs.

Thomas Jefferson Middle School and Wasco Union Elementary School sit along Griffith Avenue south of State Route 46, while a residential area lies north of the highway. About 322 kindergarten through 12th grade students live north of State Route 46. This figure represents approximately 9% of school-age children in the community. All elementary school children living north of State Route 46 are bused to school.

A pedestrian count was taken at the intersection of Griffith Avenue and State Route 46 on January 23, 2003, between 2:00 p.m. and 3:30 p.m. During that time, 54 pedestrians were counted. All of the pedestrians were school-aged children; no crossing guard was present. Light pedestrian activity was noted along State Route 46 during that time.

The City of Wasco has received a grant from the Safe Routes to School Program to install a traffic signal at this intersection. Improvements to the intersection would include protected left turns for the traffic on State Route 46. The signal is expected to be installed in 2006. If Caltrans and the City cannot find additional funding to cover changes in the project, then the traffic signal would be included in the Wasco 4-Lane Widening project as originally planned.

The City of Wasco conducted a survey as a part of preparing its application for the Safe Routes to School Program. The purpose of the survey was to determine how students living north of State Route 46 go to and from school. The survey received responses from 223 students. The results of the survey indicated that 47% of the students are driven to school, 27% ride the bus, and 25% walk or ride a bicycle. One percent did not respond to the question. In addition, 43% of the students driven to school indicated they chose to be driven to school because they feel crossing State Route 46 on foot or by bicycle is too dangerous. The study indicated that crossing State Route 46 is a major safety concern for students.

There are no existing or planned bicycle lanes along State Route 46. The Kern County Bicycle Facilities Plan, adopted by the Kern Council of Governments in October 2001, depicts a number of proposed routes and one existing route along Poso Avenue in the City of Wasco. One of the proposed routes along Palm Avenue would cross the highway. Proposed routes on Central Avenue and “E” Street would end on the south side of State Route 46.

Impacts

Installing a traffic signal at the intersection of Griffith Avenue and State Route 46 and constructing sidewalks and medians with pedestrian refuges within Segment 2 would improve safety for pedestrians. The project would also construct sidewalks either over or under the Burlington Northern/Santa Fe Railroad crossing, depending on the build alternative.

Bicycle lanes are not recommended on State Route 46 because of on-street parking and the high percentage of truck traffic.

Avoidance, Minimization and/or Mitigation Measures

During construction, a traffic management plan would help reduce traffic delays, congestion, and accidents. Standard Caltrans construction practices include providing information on roadway conditions, using portable changeable message signs, lane and road closures, advance warning signs, alternate routes, reverse and alternate traffic control, and a traffic contingency plan for unforeseen circumstances and emergencies. The Caltrans Public Affairs Office would keep the local media informed of construction progress and information pertaining to delays, closures and major changes in traffic patterns with information provided by the resident engineer.

A Construction Zone Enhanced Enforcement Program may be appropriate during portions of this project. The program involves the continuous presence of the California Highway Patrol in construction zones to serve as a reminder to motorists to slow down and use caution when traveling through work areas. The Caltrans Construction Division would be consulted to determine if the program is warranted for this project.

Improvements would be constructed to conform with the requirements of the Americans With Disabilities Act.

2.1.6 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* and culturally pleasing surroundings [42 U.S.C. 4331(b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act [23 U.S.C. 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

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

This section assesses the visual change and the potential impacts that would result from the project.

Affected Environment

Caltrans prepared a Report of Scenic and Aesthetic Review, dated October 6, 2003, for the project. Each segment of the project presents a different visual environment.

Segment 1 lies within rural agricultural land. Cotton fields and orchards flank the existing highway. Electrical service lines jog from one side of the highway to the other. Views from the highway include a few agricultural-related buildings, small single-family homes, a cemetery, and a golf course that is bordered by a white fence.

Segment 2 transitions from rural agriculture to the urban uses of the City of Wasco. Orchards on the western end of Segment 2 change to commercial enterprises with mostly unobtrusive signs that flank both sides of the highway. Sidewalks are wide, and most of the adjacent businesses are landscaped. Electrical power lines, on the south side of the highway, remain throughout this segment. There are no streetlights in this section of town. A few scattered residential parcels dot this segment.

The visual quality of Segment 2 is poor. The viewshed has no unity with the surrounding agricultural area. The streetscape along this segment of State Route 46 is not intact. The only consistent elements throughout the site are overhead power lines along the south side of the highway and the continuous left-turn lane. Other elements, including the use of plant materials for landscaping, land use, setbacks, shoulder width, street width, sidewalk width and the existence of sidewalks change throughout the area between Central Avenue and “F” Street. Strip commercial land uses are common. Elements such as architectural details or landscape requirements that might be part of a master plan are generally lacking due to the age of most of the development along the highway.

In Segment 3, the highway dips under the Burlington Northern/Santa Fe Railroad tracks. Flanking the underpass are slopes covered with weeds. The railroad bridge abutments are concrete with a steel I-beam trellis. Industrial and agricultural businesses surround this eastern segment.

Impacts

Segment 1 is currently dominated by views of the surrounding agricultural uses. Adding lanes and a median would cause the highway to become the dominant visual feature in the area.

In Segment 2, widening the highway would increase the mass of paved area and built features in the area.

In Segment 3, alternatives that propose an underpass would be more visually pleasing and appropriate than those that propose an overpass. The flat nature of the city and the surrounding agricultural land would not support a massive overpass. The overpass alternative allows more negative views into the industrial portion of the city that would be difficult to screen. Such a large structure would not be contextually sensitive to the area or the city. An underpass would allow unobstructed views of the familiar surroundings from the existing grade.

Avoidance, Minimization and/or Mitigation Measures

In Segment 1, the wider corridor along with a clear recovery area would provide an improved vista through this segment of the project, increasing the visual quality of the highway.

In Segment 2, Alternative 9b has the potential to increase the unity of the area by adding a landscaped median. Construction of the proposed improvements using any of the alternatives would improve the consistency of the visual elements within the highway right-of-way. Alternative 9b also offers the greatest potential to increase the vividness of the view in the area by providing space for enhancement to occur such as breaking up the mass of paved area with landscaped or stamped concrete medians.

In Segment 3, landscaping the slopes of the underpass would soften the impact of such a large structure and would screen the adjacent industrial properties from view from the highway. Landscaping would also help control erosion. A textured finish to the underpass would help make it a more visually appealing entrance into the city. Pedestrian facilities within the underpass coupled with aesthetic amenities, such as enhanced paving and landscaping, would also improve the visual quality of Segment 3. Aesthetic details and pedestrian amenities within the structure itself would strengthen the link between the highway and the community.

2.2 Physical Environment

2.2.1 Water Quality and Stormwater Runoff

Regulatory Setting

Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System permit system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. To ensure compliance with Section 402, the State Water Resources Control Board has issued a National Pollutant Discharge Elimination System Permit to regulate storm water discharges from all of Caltrans' right-of-way, properties and facilities. The permit regulates both storm and non-storm water discharges from Caltrans right-of-way both during and after construction, as well as from existing facilities and operations.

The State Water Resources Control Board issues the same statewide permit for all Caltrans construction activities of 0.4 hectare (1 acre) or greater, or a number of smaller projects that are part of a common plan of development with the total area

exceeding 0.4 hectare (1 acre), or projects that have the potential to significantly impair water quality. Caltrans projects subject to the Statewide Storm Water Permit require a Storm Water Pollution Prevention Plan, while all other projects, smaller than 0.4 hectare (1 acre), require a Water Pollution Control Program.

Subject to Caltrans review and approval, the contractor prepares both the Storm Water Pollution Prevention Plan and the Water Pollution Control Program. The Storm Water Pollution Prevention Plan and Water Pollution Control Program identify construction activities that may cause pollutants in storm water and measures to control these pollutants. Because neither the Storm Water Pollution Prevention Plan nor the Water Pollution Control Program is prepared at this time, the following discussion focuses on anticipated pollution sources or activities that may cause pollutants in storm water discharges.

Additional laws regulating water quality include the Porter-Cologne Water Quality Act, Safe Drinking Water Act, and Pollution Prevention Act. State water quality laws are codified in the California Water Code and Health and Safety Code.

In California, the Environmental Protection Agency has delegated administration of the federal National Pollutant Discharge Elimination System program to the State Water Resources Control Board and the nine Regional Water Quality Control Boards. This project lies within the jurisdiction of the State Water Resources Control Board and the Central Valley Regional Water Quality Control Board. The State Water Resources Control Board has developed and issued a Statewide National Pollutant Discharge Elimination System Permit for storm water discharges that applies to Caltrans.

Affected Environment

Caltrans prepared a Water Quality Report, dated April 24, 2003, for the project.

Regional

The project lies in the western foothills of the Sierra Nevada in the San Joaquin Valley. The San Joaquin Valley is a topographic and structural trough, which has received a thick accumulation of sediments from the Sierra Nevada on the east and the Coast Range on the west. The east side of the valley, bounded by the Sierra Nevada fault block, dips gently to become flat over the granite rocks of the Sierra Nevada. The west side of the valley dips steeply at its extreme western boundary along the base of the Coast Range, where it lies over the Franciscan Formation.

Surface Water

The project area sits in the San Joaquin Basin. Major water bodies in this part of the watershed are the Kern River and the California Aqueduct. These water bodies are not in the immediate vicinity of the project, and any water discharge from the project in the form of runoff or spills would not discharge into either water body. Other surface water resources within the project area include roadside ditches, agricultural and oil field-generated wastewater ponds, seasonal wet meadows and temporary drainages. Except for seasonal wet meadows and temporary drainages, which also have been substantially altered by man, these surface water resources are man-made and are therefore not natural water bodies.

Groundwater

The project lies within the San Joaquin River Groundwater Basin, with most of the project area within the Tulare Lake Basin, a closed sub-basin of the San Joaquin River Groundwater Basin. The Tulare Lake Basin drains to Buena Vista Lake via the Kern River and to Tulare Lake via the Tule, Kaweah and Kings rivers. Groundwater in this area is deep and is generally of poor quality.

Storm Water Quality

Storm water runoff is a major source of storm water pollution. The main pollutants are sediments, petroleum distillates and metals. Runoff from Caltrans sites in a particular watershed composes less than 1% of the total runoff generated from the entire watershed.

Impacts

Impacts from the project would be the same for all build alternatives. Potential sources of water pollution from this project include runoff containing sediment from soil erosion, petroleum and wear products from motor vehicle operation, landscaping chemicals and hazardous materials spilled on the highway during an accident. These materials would usually be transported offsite by runoff from rainfall.

No groundwater impacts would be expected from the project. Short-term impacts to surface water could occur during construction, mainly from exposure of loose soil during construction. Suspended solids, dissolved solids and organic pollutants in surface water bodies could increase while soils are disturbed and dust is generated. These conditions would likely persist until construction has been completed and erosion control measures have been implemented. Proper selection and

implementation of best management practices during construction would prevent or greatly reduce these short-term impacts.

Long-term water quality impacts can occur due to changes in storm water drainage. The main pollutants are sediments, petroleum distillates and metals. These substances are washed off the highway during storms and become runoff. With implementation of a Storm Water Pollution Prevention Plan during construction and the inclusion of design pollution prevention best management practices, no long-term impacts to surface water quality would be expected as a result of this project.

Runoff in Segment 1 currently runs off into side ditches next to the existing highway. Runoff in Segment 2 goes into an existing drainage system that shares a drainage basin with the City of Wasco. Runoff in Segment 3 primarily runs into the existing railroad underpass and is removed through a pump station to a nearby Caltrans drainage basin.

Runoff from the highway would increase with the widening of State Route 46. The increased runoff would be greatest in Segment 1. Runoff would increase 18 cubic feet per second in Segment 1, 8.5 cubic feet per second in Segment 2, and 2.5 cubic feet per second in Segment 3.

Caltrans Hydraulic Engineers and the City of Wasco have reviewed the proposed alternatives in Segment 2 and have concluded that the existing drainage basin would be able to handle the increased runoff generated by the proposed project. A new cooperative agreement for storm water drainage would need to be executed by the City of Wasco and Caltrans during the design of the project.

Avoidance, Minimization and/or Mitigation Measures

During construction, a Storm Water Pollution Prevention Plan would be implemented to identify the sources of sediment and other pollutants that affect the quality of storm water discharges. The plan would also describe and ensure the implementation of best management practices to reduce or eliminate sediment and other pollutants in storm water as well as non-storm water discharges.

Below are specific best management practices that must be addressed at various phases of the project from the planning phase to the built and operational phases. Key management measures for roads, highways and bridges include the following:

- Protect areas that provide important water quality benefits or that are particularly susceptible to erosion or sediment loss.
- Limit land disturbance such as clearing and grading and cut/fill to reduce erosion and sediment loss.
- Limit disturbance of natural drainage features and vegetation.
- Place bridge structures so that sensitive and valuable aquatic ecosystems are protected.
- Prepare and implement an approved erosion control plan.
- Ensure proper storage and disposal of toxic material.
- Incorporate pollution prevention into operation and maintenance procedures to reduce the amount of pollutants getting into surface runoff.

Erosion and water pollution issues must be addressed at each phase of the project from planning and design to the built and operational phases. Management measures for roads, highways and bridges would include using the most current Caltrans *Project Planning and Design Guide*, approved pollution prevention design measures and construction site best management practices to control discharges of pollutants to the maximum extent practicable.

If the total disturbed area of the proposed project is greater than 0.4 hectare (1 acre), Caltrans is required to submit the following to Region 5 of the Central Valley Regional Water Quality Control Board:

1. A Notification of Construction is to be submitted to the appropriate Regional Water Quality Control Board at least 30 days before construction starts. The Notice of Construction reports the tentative start date, tentative duration, location of construction, description of the project, an estimate of the disturbed soil areas, and name and telephone number of the resident engineer in charge of the project.
2. A Storm Water Pollution Prevention Plan is to be prepared by the contractor and implemented during construction to the satisfaction of the resident engineer. The Storm Water Pollution Prevention Plan is subject to review by the Central Valley Regional Water Quality Control Board before starting any soil-disturbing activities and becomes a regulatory enforceable document.
3. A Notice of Completion shall be submitted to the Central Valley Regional Water Quality Control Board upon completion of the construction and stabilization of

the site. A project would be considered complete when the criteria for final stabilization in the State General Construction Permit are met.

To handle the increased drainage in Segment 1, a drainage system would have to be built. Alternative 1 and Alternative 2 propose to construct side ditches on both sides of the roadway. Culverts would be placed to carry water from the median to the side ditches. Alternative 3 proposes to construct a drainage system. Additional right-of-way would be required to handle the increased height of the lanes and to accommodate the drainage system.

A larger pump station would be constructed to handle the increased drainage in Segment 3. The adjoining Caltrans drainage basin would be doubled in size to handle the additional runoff.

2.2.2 Paleontology

Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. Although no federal law specifically protects natural or paleontological resources, a number of laws have been interpreted to do so, specifically the Antiquities Act of 1906 that protects historic or prehistoric ruins or monuments and objects of antiquity. The Federal Aid Highway Act specifically allows funding for paleontological mitigation. Under California law, paleontological resources are protected by the California Environmental Quality Act, the California Administrative Code, Title 14, Section 4306 et seq., and Public Resources Code Section 5097.5.

Affected Environment

The project lies in the Great Valley geomorphic province, an alluvial plain about 80 kilometers (50 miles) wide and 644 kilometers (400 miles) long. This area includes the Sacramento and San Joaquin valleys. Wasco is on the alluvial fan of Poso Creek, the first major stream draining the western slope of the Sierra Nevada foothills north of the Kern River. The Poso Creek fan has built out west from the foothills up against the Semitropic Ridge on the west side of the San Joaquin Valley.

The project area is bounded on the east and west by Plio-Pleistocene nonmarine sedimentary deposits. Pleistocene older alluvium and Holocene fan deposits of the Great Valley overlie the Plio-Pleistocene sediments. The University of California Museum of Paleontology at Berkeley and the Los Angeles County Museum of Natural History have fossil sites in these sediments.

The Plio-Pleistocene nonmarine sediments to the east and likely underlying Wasco are part of the Kern River Formation, which is designated “high sensitivity” for unique vertebrate (animals with a backbone) land fossils. Vertebrate fossil sites are found from Kern County to Tulare County, including sites in Arvin, Bakersfield, Elk Hills, Delano, Earlimart, and Tipton. Many types of fossils—from microfossils to camels and rhinos—have been discovered in these areas.

Impacts

Caltrans completed an Initial Paleontology Study for the project on April 24, 2002. California State University, Fresno produced an Assessment Report on Paleontological Sensitivity (March 14, 2003). On April 22, 2005, Caltrans completed a Paleontology Study for the project.

Geologic maps were reviewed and a literature search was conducted to identify stratigraphic units in the area covered by the Wasco and Wasco Southwest, California 7.5 minute U.S. Geological Survey topographic map quadrangles. Record searches for fossil sites within the project area were conducted at the University of California Museum of Paleontology at Berkeley and the Los Angeles County Museum of Natural History. A field survey was also performed.

The project would affect late Quaternary fan deposits at the surface throughout the project area and may affect older Quaternary and Plio-Pleistocene strata, an area of low sensitivity for encountering major fossil remains along the project route based on the late Quaternary strata at the ground surface. It is unlikely that scientifically important fossils would be discovered within the upper few feet of sediment in the project area. Construction disturbing approximately the upper 1.8 meters (6 feet) of sediment would not require monitoring. Deeper excavation could encounter Plio-Pleistocene deposits containing important fossil resources. Monitoring is recommended where excavation would occur to depths greater than approximately 1.8 meters (6 feet).

Widening the existing Burlington Northern/Santa Fe Railroad underpass could involve excavation up to approximately 7 to 8 meters (23 to 26.5 feet) in depth. Excavation at this depth could encounter Plio-Pleistocene sedimentary strata containing important fossil resources. Construction of an underpass would require the construction of abutments, while an overpass would require columns to support the structure. Both types of supports could involve various types of construction methods such as pilings, cast-in-drilled-holes-type columns or spread footings. All of these

construction methods would exceed 1.8 meters (6 feet) and could reach as deep as bedrock. Additionally, expansion of the adjacent ponding basin on the north side of State Route 46 and the west side of the Burlington Northern/Santa Fe Railroad right-of-way would involve excavation exceeding 1.8 meters (6 feet).

Avoidance, Minimization and/or Mitigation Measures

Paleontological monitoring is warranted because the potential exists for uncovering scientifically important vertebrate remains during excavation in the project area. The Assessment Report on Paleontological Sensitivity and the Paleontology Study recommend monitoring be conducted in areas where excavation work would exceed approximately 1.8 meters (6 feet) in depth. In particular, crossing the Burlington Northern/Santa Fe Railroad and expanding the adjacent ponding basin should be monitored.

Paleontological mitigation for the project would include the following:

- A qualified principal paleontologist would be retained to prepare a detailed Paleontological Mitigation Plan before construction starts. All geologic work would be performed under the supervision of a California Professional Geologist.
- The qualified principal paleontologist would be present at pre-grading meetings to consult with grading and excavation contractors.
- Near the beginning of excavations, the principal paleontologist would conduct an employee environmental awareness training session for all persons involved in earth-moving for the project.
- A paleontological monitor, under the direction of the qualified principal paleontologist, would be onsite to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.
- When fossils are discovered, the paleontologist (or paleontological monitor) would recover them. Construction work in these areas would be stopped or diverted to allow recovery of fossil remains in a timely manner.
- A bulk sediment sample would be recovered from each fossiliferous horizon and processed for microvertebrate remains as determined necessary.
- Fossil remains collected during the monitoring and salvaging portion of the mitigation program would be cleaned, repaired, sorted, and catalogued.

- Prepared fossils, along with copies of all pertinent field notes, photos, and maps, would then be deposited in a scientific institution with paleontological collections.
- A final report would be completed and signed by the principal paleontologist and Professional Geologist that outlines the results of the mitigation program.
- Where feasible, selected road cuts or large finished slopes in areas of critically interesting geology may be left exposed so they can serve as important educational and scientific features. This may be possible if no substantial adverse visual impact results.
- A nonstandard special provision for paleontology mitigation would be included in the construction contract special provisions section to advise the construction contractor of the requirement to cooperate with the paleontological salvage.

2.2.3 Hazardous Waste Materials

Regulatory Setting

Hazardous materials and hazardous wastes 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 main 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 Resource Conservation and Recovery Act provides for “cradle to grave” regulation of hazardous wastes. 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. Other federal laws include:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act (OSHA)
- 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 Resources 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

The study area consists of 128 parcels within and adjacent to the proposed right-of-way. Parcels include agricultural land, rural single-family residences, irrigation and individual domestic groundwater wells, individual sewage systems, commercial, industrial and single-family residential uses.

Two Preliminary Site Investigations, an Aerially Deposited Lead Study (2002), Soil Investigation Report of the Burlington Northern/Santa Fe Railroad right-of-way and adjoining Caltrans retention basin (2004), and an Initial Site Assessment of aboveground and underground tanks (2005) were completed for the project.

Aerially Deposited Lead

An Aerially Deposited Lead Study was completed for the project on October 31, 2002, to evaluate the presence and concentration of aerially deposited lead in shallow soil within the work area. The results of the investigation indicated whether aerially deposited lead in the soil within the project limits exceeds the regulatory threshold outlined in Title 22, California Code of Regulations. Soil found to exceed the regulatory threshold would be classified as hazardous waste and must be disposed of at a permitted hazardous waste landfill.

Soil Investigation

A soil investigation was completed for the project on May 25, 2004, to evaluate the presence and concentration of hydrocarbons and heavy metals in shallow soil at the existing Burlington Northern/Santa Fe Railroad undercrossing and an adjoining Caltrans retention basin that collects water from the underpass, including water that has passed over the railroad bridge. Also evaluated was an area on the west side of the retention basin, where Jeffries Brothers Incorporated maintains a bulk oil storage facility with many 55-gallon drums stacked against the chain link fence that separates the two properties. Earlier inspection of the area indicated that some of the drums were leaking materials into the impound basin.

The existing railroad bridge is constructed of steel with wooden ties on a cobble bed. The bridge rests on steel bearing pads bolted to concrete. Corrosion protection for the structure could have contained lead-based paint at one time and heavy metals such as arsenic and chromium often associated with treated wood and ballast waste from railroads. The collection basin could concentrate contamination from the sources described.

Soil samples were taken from the area and analyzed for total petroleum hydrocarbons, including gasoline diesel, oil, benzene, toluene, ethylbenzene and xylenes.

Initial Site Assessment

Caltrans completed an Initial Site Assessment on June 6, 2005. The study focused on the status of underground storage tanks, reported leaking underground storage tanks and subsequently characterized the risk of encountering hazardous waste materials associated with these properties. In addition, the study noted buildings that might have lead-based paint or other hazards, including the presence of pesticides.

The Initial Site Assessment indicated that 16 parcels had a moderate to high potential to affect the proposed highway-widening project. (See Table 2.8 and Figure 2-4 for 13 of those parcels; the remaining three are discussed after the parcel descriptions.) Hazardous waste products included gasoline, diesel, oil, solvents, herbicides, pesticides and fertilizers. Solid waste/recycling materials were found in the project area as well. Gasoline leakage in at least one site has affected the groundwater.

Table 2.8 Potential Hazardous Waste Sites

Number	Present Tenant/Assessor's Parcel Number	Address	Hazardous Waste Potential	Comments
1	State of California 487-080-09	15215 Scofield Avenue	Moderate	Risk based on site history.
2	Emillio's Auto Sales/Service 487-213-28 & 29	1102 Highway 46	Moderate	Risk based on site history. Four tanks were removed.
3	G & V Mini Mart 487-213-21	1224 Highway 46	High	Five tanks removed from site. Case still open.
4	Wasco Glass 029-180-20	1311 Highway 46	Moderate	Risk based on site history.
5	Texaco Gas & Mini Mart 029-180-17	1445 Highway 46	Moderate	Three tanks removed. Two tanks active and in compliance.
6	Ron's Auto Repair 029-191-17	1241 Highway 46	Moderate	Three tanks removed.
7	Wasco Auto & Smog 029-081-25	1633 Highway 46	Moderate	Five tanks removed. Risk based on site history.
8	Chevron Food Mart 029-021-01	2033 Highway 46	Moderate	Three active tanks in compliance. Previous tanks removed.
9	Howard Hay Company 487-020-10	826/910 Highway 46	Moderate	Two tanks have been removed and site closed.
10	San Joaquin Tractor 487-020-04	820 Famosa Highway	Moderate	Risk based on site history.
11	Jeffries Brothers Incorporated 487-020-13	750 Highway 46	Moderate	Leaking 55-gallon drums on site.
12	B & L Radiator 030-191-06	801 Highway 46	Moderate	Three tanks removed. Risk based on site history and present use.
13	Mike P. Goertzen 072-060-01	29339 Highway 46	Moderate	Tanks have been removed but in-ground lift still present.

State of California: This property is the site of a substation that provides electrical service for the Wasco State Prison. Substations are associated with transformers, which can contain polychlorinated biphenyls; commonly known as PCBs. Polychlorinated biphenyls are listed as a hazardous material because they can cause cancer and birth defects.

Emillio's Auto Sales: A gasoline leak that affected soil was reported under a previous ownership. Four tanks were removed, and a closure letter was issued for this site.

G & V Mini Mart: An undefined release of gasoline affecting water was reported under a previous ownership. Five tanks were removed from the site, but the Kern County Environmental Health Services Department has never issued a closure letter for the property. Monitoring wells are scattered throughout the property and are relatively close to the edge of pavement. The City of Wasco is currently processing an application for a new mini-mart on the property.

Wasco Glass: A gasoline leak that affected soil was discovered during the removal of tanks on the property. The site has since been remediated and subsequently closed. The site is currently listed as a small generator of hazardous waste in the Resource Conservation and Recovery Information System.

Texaco Gas & Mini Mart: A gasoline leak that affected soil was reported under a previous ownership. Three tanks were removed, and a closure letter was issued for this site. The site currently has two tanks that are active and in compliance. The site is also currently listed as a small generator of hazardous waste in the Resource Conservation and Recovery Information System.

Ron's Auto Repair: The Kern County Environmental Health Services Department indicated that three tanks have been removed from this property and a closure letter was issued. This property is currently being operated as an automotive repair shop. As a consequence, petroleum hydrocarbons and solvents may be stored onsite.

Wasco Auto & Smog: A record search at the Kern County Environmental Health Services Department indicated the presence of an underground storage tank site for the business name "Bozarth Tire and Lube." The Kern County Environmental Health Services Department indicated that five tanks have been removed from the property. A closure letter was issued for this site. This property is currently operating as an

automotive repair shop. As a consequence, petroleum hydrocarbons and solvents may be stored onsite.

Chevron Food Mart: This property was identified as having a closed leaking underground storage tank file. A closure letter was issued for this site. Additionally, this site is listed in the Resource Conservation and Recovery Information System as a small generator of hazardous waste and is identified as an underground storage tank site under the business name “Greenfield’s One Stop.” A visual inspection indicated that previous underground storage tanks might have been located within 6.1 meters (20 feet) of the existing pavement. The property is currently identified as having active underground storage tanks.

Howard Hay Company: A search of Kern County Environmental Health Services Department records indicated the presence of an underground storage tank site for the business name “Howard Hay Company.” Two tanks have been removed, and a closure letter was issued for this site.

San Joaquin Tractor Company: A gasoline leak that affected soil was reported for this property. A closure letter was issued for this site.

Jeffries Brothers Incorporated: This site has four active underground storage tanks. There are also several 55-gallon drums stored along the fence line between this property and the adjoining Caltrans impound basin for State Route 46. Visual inspection identified that some of the drums were leaking into the impound basin property. Soil samples were taken in this area as a part of a preliminary site investigation. The results of the sampling indicated that areas with detectable levels of Total Petroleum Hydrocarbons diesel and Total Petroleum Hydrocarbons oil could be handled as non-hazardous waste.

B & L Radiator: The Kern County Environmental Health Services Department indicated that three tanks were removed from the site and a closure letter had been sent. This property currently operates as an automotive repair shop. As a consequence, petroleum hydrocarbons and solvents may be stored onsite.

Mike P. Goertzen: This property is the site of a vacant gas station. The Kern County Environmental Health Services Department indicated that tanks were removed from the site. An in-ground hydraulic lift remains in the garage. Hazardous materials associated with the hydraulic tank and lines may still be present onsite.

Further investigation and review of Kern County Environmental Health Services Department records gave no evidence to support historic underground storage tanks at the remaining three parcels (not discussed with the 13 above): the Subway Sandwich Shop, Writes Hay Lodging, or the Agri Business Center.

Other Potential Sources of Hazardous Waste:

- No serpentine or ultramafic rocks that contain naturally occurring asbestos were identified. However, asbestos-containing materials could be present on the Burlington Northern/Santa Fe Railroad bridge.
- Utilities within the proposed right-of-way include electrical power lines, fiber-optic cable, and telephone lines. Power transformers associated with the power lines or other electrical or hydraulic equipment may contain polychlorinated biphenyls, a chemical that could affect human health.
- Public and private water wells that could be affected by the proposed project may be located within the proposed project limits.
- Alignment planning should consider the possibility of encroachment on groundwater monitoring wells associated with sites that have been identified as having either underground storage or leaking underground storage case files.
- Where yellow thermo plastic paint is to be removed, the contractor shall comply with standard special provision 15-300.

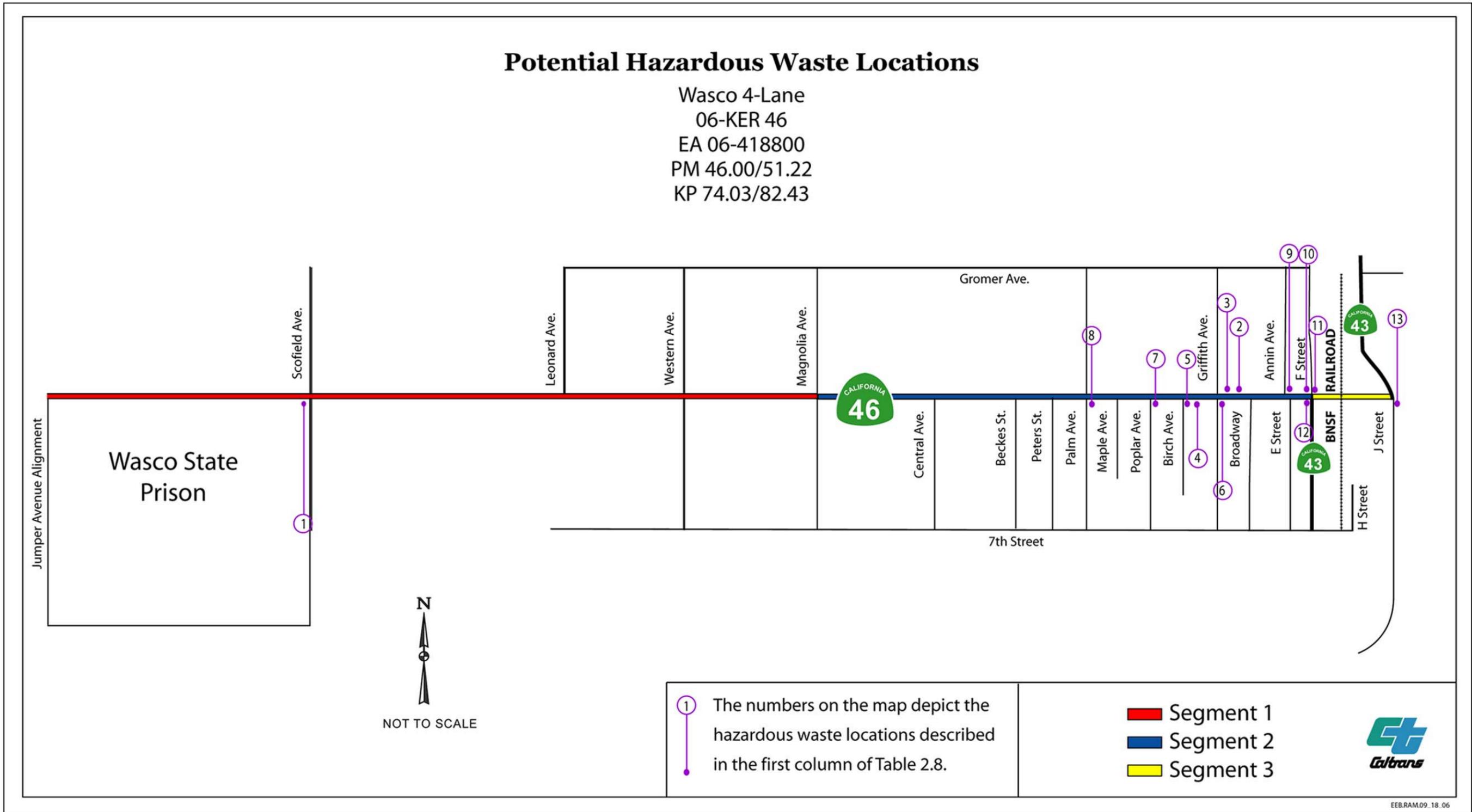


Figure 2-4. Potential Hazardous Waste Locations



Impacts

Aerially Deposited Lead

An Aerially Deposited Lead Survey found lead in soil samples collected from the site. The source of the lead is not known, but is believed to be related to the accumulation of dust and debris containing lead from leaded gasoline emissions.

Based on the total and soluble lead analytical results, overall, the soil within the project limits would not be considered a California hazardous waste and can be reused or managed onsite without restriction based on the highest upper confidence limit. Special handling and disposal procedures are not required, except as needed to protect the health and safety of workers on the project.

Soil Investigation

Sample results did not detect the presence of Total Petroleum Hydrocarbons gasoline or benzene, toluene, ethylbenzene or xylenes at concentrations above the laboratory-reporting limit in any of the samples collected.

Soil with elevated total arsenic and chromium were detected in one sample on the railroad right-of-way. Based on waste characterization of the study, soils would not require handling as a hazardous material for arsenic and chromium if excavated from the area sampled.

Soils affected with lead would not be considered a California hazardous waste and can be re-used or managed onsite without restriction based on the highest upper confidence level that does not exceed the regulatory threshold for lead outlined in Title 22 of the California Code of Regulations.

Sample results detected the presence of Total Petroleum Hydrocarbons diesel in 21 soil samples and Total Petroleum Hydrocarbons oil in 22 soil samples. Only one sample, located along the fence line between the Caltrans impound basin and the Jeffries Brothers Incorporated properties, exceeded 500 milligrams/kilogram. A second site near the northwest corner of the Burlington Northern/Santa Fe Railroad and State Route 46 slope exceeded 100 milligrams/kilogram for Total Petroleum Hydrocarbons diesel and Total Petroleum Hydrocarbons oil, but was below 500 milligrams/kilogram. Based on the reported results, soils excavated near areas with detectable concentrations of Total Petroleum Hydrocarbons diesel and Total Petroleum Hydrocarbons oil could be handled as non-hazardous waste.

Initial Site Assessment

Table 2.8 lists 16 properties with moderate to high potential for affecting the proposed project. Strips of land off the front of each of these parcels would be required for the project right-of-way. Any property purchased for the project right-of-way would need to be certified free of hazardous waste.

Standard waste-handling provisions would be included in the construction contract for asbestos and lead, should any asbestos-containing material be found on the railroad bridge.

Abandoned wells or existing agricultural wells located within the proposed right-of-way would be eliminated in accordance with Department of Water Resources requirements. Existing agricultural wells would be reconstructed.

Lead-based paint may be present on the Burlington Northern/Santa Fe Railroad bridge. In addition, lead-based paint was observed peeling and flaking from a building at State Route 46 and Magnolia Avenue.

The project would require strips of land off the front of agricultural parcels. These parcels may have been subject to the application of pesticides and herbicides over many years. It is possible that residuals of these chemicals have built up in the surface of the soil. This condition is not expected to be an issue for a paving project, but if soils are to be moved, they should be screened for residuals of these chemicals and handled according to local, state and federal laws and regulations.

Avoidance, Minimization and/or Mitigation Measures

Aerially Deposited Lead

The results of the aerially deposited lead investigation indicated that no mitigation is necessary.

Soil Investigation

The results of the soil investigation indicated that no mitigation is necessary.

Initial Site Assessment

Five properties were listed as high risk for encountering hazardous waste. See Table 2.8. Properties have evidence of historic underground storage tanks, but no record of removal or remediation. Further investigation of these sites would be necessary to determine if there are any substantial impacts from hazardous materials, waste, and/or petroleum hydrocarbons associated with the sites.

Although closure was obtained for most of the properties listed, there is potential for unknown hazardous contamination to be discovered during construction. For any previously unknown hazardous waste/material encountered during construction, the procedures outlined in the Caltrans Construction Hazardous Waste Contingency Plan should be followed.

Alignment planning should consider possible encroachment on groundwater monitoring wells associated with sites that have been identified as having leaking underground storage tanks.

Loose and peeling/flaking lead-based paint requires removal before demolition for waste segregation. A licensed and certified abatement contractor should be used to remove all peeling/flaking areas, if it is determined that any structure contains lead-based paint and/or must be demolished. The abatement contractor should be required to use personnel who have lead-related construction certification from the California Department of Health Services for lead-based paint removal work.

If soils are to be moved from an agricultural parcel to another parcel, the surface soils should be screened for residual pesticides and herbicides in accordance with local, state and federal laws and regulations.

Steps would be taken to reduce or eliminate any airborne dust. Water should be available at all times to moisten the soil in work areas where activities could potentially stir up aerially deposited lead.

The demolition of water wells within the project limits must be in accordance with standards prepared by the Department of Water Resources (Bulletins 74-90) Title 23, California Code of Regulations and local regulatory standards.

2.2.4 Air Quality

Regulatory Setting

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

dioxide (NO₂), ozone (O₃), particulate matter (PM), lead (Pb), and sulfur dioxide (SO₂).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to the Clean Air Act requirements. The proposed project must conform on both the regional level and project level to be approved.

Regional level conformity is concerned with how well the region is meeting the standards set for the pollutants listed above. Based on Regional Transportation Plans, which include all transportation projects planned for a region, usually for the next 20 years, an air quality model is run to determine if the implementation of those projects would result in a violation of the Clean Air Act. If no violations would occur, the regional planning organization, such as the Kern Council of Governments for Kern County and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the Regional Transportation Plans are in conformity with the Clean Air Act. If, however, violations would occur, the projects in the Regional Transportation Plans must be modified until conformity is attained. If the design and scope of the proposed transportation projects are the same as described in the Regional Transportation Plans, then a proposed project is deemed to be in conformity at the regional level.

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

The Environmental Protection Agency established the National Ambient Air Quality Standards for six pollutants: ozone, carbon monoxide, suspended particulate matter, nitrogen dioxide, sulfur dioxide, and lead. Lead was discussed in the Hazardous Waste section (2.2.3) of this document.

Each pollutant is evaluated differently, depending upon if it occurs on a regional or project level. The main pollutants related to transportation projects are ozone, carbon monoxide, and particulate matter.

Affected Environment

Caltrans prepared an Air Quality Analysis, dated December 7, 2005, for this project.

The project area lies in the San Joaquin Valley Air Basin. Mountain ranges bordering the air basin influence the wind speed and direction, affecting both the climate and the dispersion of air pollutants in the valley, where temperature inversions frequently occur. In an inversion, upper air becomes warmer than the air beneath it. Because warm surface air cannot rise into an even warmer layer, surface air and its pollutants get trapped at ground level. Inversions are more prevalent and of greater magnitude in late summer and fall.

The San Joaquin Valley Unified Air Pollution Control District administers air quality regulations developed at the federal, state, and local levels. For Kern County, ozone, carbon monoxide, and particulate matter are of particular concern. Ozone is considered a regional pollutant; carbon monoxide and particulate matter are considered project-level pollutants.

For federal standards, Kern County is considered non-attainment/severe for ozone, attainment/maintenance for carbon monoxide, and non-attainment/serious for particulate matter. For state standards, Kern County is considered non-attainment for ozone and particulate matter, and attainment for carbon monoxide (see Table 2.9).

Table 2.9 Air Quality Emissions Analysis for Kern County

Criteria Pollutant	Federal Standard	Federal Attainment Status	State Standard	State Attainment Status
Ozone (1-hour average)	0.12 ppm (1-hour average)	Non-attainment/ Severe	0.09 ppm (1-hour average)	Non-attainment
Ozone (8-hour average)	0.08 ppm (8-hour average)	Non-attainment/ Severe	0.07 ppm (8-hour average)	Non-attainment
Carbon Monoxide	35 ppm (1-hour average)	Attainment/ Maintenance	20 ppm (1-hour average)	Attainment
	9 ppm (8-hour average)		9 ppm (8-hour average)	
Particulate Matter ₁₀	150 µg/m ³ (annual arithmetic mean)	Non-Attainment/ Serious	50 µg/m ³ (annual arithmetic mean)	Non-Attainment
Particulate Matter _{2.5}	65 µg/m ³ (24-hour)	Non-Attainment/ Serious	No standard	
Nitrogen Dioxide	0.053 ppm (1-hour annual average)	Attainment/ Unclassified	0.25 ppm (1-hour annual average)	Attainment
Sulfur Dioxide		No federal standard		Attainment
Hydrogen Sulfide		No federal standard		Unclassified

ppm = parts per million

Impacts

The following discussion evaluates the impacts of the project as a whole.

This capacity-increasing project is not exempt from the requirement that a conformity determination be made. The design concept and scope of the project are consistent with that assumed in regional emissions analysis. The project does not interfere with the timely implementation of traffic control measures.

Regional Analysis

The 2004 Regional Transportation Plan for Kern County was found to conform by the Kern Council of Governments on August 19, 2004. The Federal Highway Administration and Federal Transit Administration adopted the air quality conformity finding on October 5, 2004. The design concept and scope of the proposed project is consistent with the project description in the 2004 Regional Transportation Plan, the Preliminary Environmental Analysis Report, and the assumptions in the Kern Council of Governments' regional emissions analysis. The State Route 46 Wasco 4-Lane Widening project will be included in the 2006 Federal Transportation Improvement Program before Federal Highway Administration approval of the Finding of No Significant Impact.

Carbon Monoxide Hot Spot Analysis

The ambient carbon monoxide levels monitored at the Bakersfield-Golden State Highway and at Bakersfield 5558 California Avenue stations (the closest stations with monitored carbon monoxide data) showed no violations in the last three years. The highest concentration was 5.38 parts per million on December 5, 2000.

The proposed project would not result in any local carbon monoxide hot spot. None of the projected carbon monoxide concentrations, with or without the project changes, would exceed the state or federal standards.

It is not anticipated that this project would create a new violation or worsen an existing violation of carbon monoxide. Therefore, based on the above analysis, no major local carbon monoxide impacts would occur as a result of the proposed project.

Particulate Matter Hot Spot Analysis

Particles less than 10 micrometers (PM₁₀) pose a potential public health concern because these small particles can be inhaled and accumulated in the respiratory system. Particles less than 2.5 micrometers (PM_{2.5}) are thought to be the greatest health risk because of their small size.

The Environmental Protection Agency has designated the San Joaquin Valley portion of Kern County as a non-attainment area for PM₁₀. The PM₁₀ monitoring station nearest the project area is the Bakersfield-5558 California Avenue monitoring station. Between 2002 and 2004, the monitored PM₁₀ particulate matter concentrations have not exceeded the federal PM₁₀ (150 micrograms per cubic meter) standards.

The Environmental Protection Agency has designated the San Joaquin Valley portion of Kern County as a non-attainment area for PM_{2.5}. The PM_{2.5} monitoring station nearest the project area is the Bakersfield-5558 California Avenue monitoring station. The monitored PM_{2.5} particulate matter concentrations exceeded the federal PM_{2.5} (65 micrograms per cubic meter) standards 14 times in 2002 and three times in 2004. The monitored PM_{2.5} particulate matter concentrations did not exceed the federal PM_{2.5} particulate standards in 2003.

The San Joaquin Valley Modeling Coordinating Committee reviewed the project as a project of air quality concern. To be a project of air quality concern, the average daily traffic count must exceed 125,000 vehicles per day, and the percentage of trucks must exceed 8% of average daily traffic. The project was reviewed due to the high percentage of truck traffic on State Route 46.

On September 14, 2006, the committee reviewed the Hot Spot Conformity Analysis prepared for the project by Caltrans and concurred with Caltrans' analysis that future new or worsened PM_{2.5} and PM₁₀ violations of any standards were not anticipated in the project area. The 2010 truck impacts should be less than as observed at the monitoring stations in 2005, based on the implementation of national diesel engine and diesel sulfur fuel regulations that are expected to cut heavy-duty diesel emissions.

A comparison of the build and no-build scenarios showed an improved level of service at the intersections in the project area for the build scenario, with decreasing idling times for diesel trucks and improving operational quality and no negative effect on air quality. Future new or worsened PM_{2.5} and PM₁₀ violations of any standards are not anticipated; therefore, the project meets the conformity hot spot requirements in 40 Code of Federal Regulations 93.116 and 93.123 for both PM_{2.5} and PM₁₀. A notice inviting public comment on the impact of the project on PM_{2.5} was published in *El Popular* on September 1, 2006, and the *Bakersfield Californian* and the *Wasco Tribune* on September 5, 2006. The comment period closed on October 5, 2006. No comments were received.

Kern County's 2004 Regional Transportation Plan and Regional Transportation Improvement Program Air Quality Conformity Findings have demonstrated that Kern County can meet the PM₁₀ and PM_{2.5} attainment standards set by the Environmental Protection Agency in 2010. The Wasco project would reduce PM₁₀ and PM_{2.5} emissions.

This project would improve the Level of Service and reduce overall idling time at intersections. The reduction in idling time would reduce idle emissions of PM₁₀ and PM_{2.5} to provide an overall air quality benefit. Based on the above, this project would not create a new violation or worsen an existing violation of the National Ambient Air Quality Standard for particulate matter. Therefore, no mitigation measures are required for long-term operational air quality effects.

During construction, the proposed project would generate air pollutants. Construction equipment exhaust contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particle matter, and odors. However, the largest percentage of pollutants would be windblown dust generated during excavation, grading, hauling, and various other activities. The impacts of these activities would vary each day as construction progresses. Occasional dust and odors at some residences close to the right-of-way could cause occasional annoyance and complaints.

Avoidance, Minimization and/or Mitigation Measures

Caltrans Standard Specifications pertaining to dust control and dust palliative requirement are part of all construction contracts and should effectively reduce and control emission impacts during construction. Typical dust and emission control methods include watering the construction site, cleaning paved streets, runoff and erosion control, traps on diesel-exhaust systems, and emission-control retrofits on older, higher polluting vehicles.

The provisions of Caltrans Standard Specifications, Section 7-1.OF “Air Pollution Control” and Section 10 “Dust Control” require the contractor to comply with San Joaquin Valley Unified Air Pollution Control District’s rules, ordinances, and regulations. A Dust Control Plan is required for this project.

2.2.5 Noise and Vibration

Regulatory Setting

The National Environmental Policy Act of 1969 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.

For highway transportation projects with Federal Highway Administration involvement, 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 criterion for residences (67 decibels) is lower than the noise abatement criterion for commercial areas (72 decibels).

Table 2.10 lists the noise abatement criteria.

Table 2.10 Noise Abatement Criteria

Activity Category	Noise Abatement Criteria, Hourly A-Weighted Noise Level, dBA $L_{eq}(h)^*$	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need 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 sports 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	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

**dBA - Level of sound pressure measured in decibels expressed in A-weighted decibels (to approximate the way humans interpret sound).*

In accordance with the Caltrans Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, October 1998, a noise impact occurs when the future noise level—with the project—results in a substantial increase in noise level (defined as a 12-decibel or more increase) or when the future noise level—with the project—approaches or exceeds 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 would 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 into the project.

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

Feasibility of noise abatement is an engineering concern. A minimum 5-decibel reduction in the future noise level must be achieved for an abatement measure to be

considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations.

The “reasonable” determination is a cost-benefit analysis. Factors used in determining if a proposed noise-abatement measure is reasonable include residents’ acceptance, the absolute noise level, build versus existing noise, environmental impacts of abatement, public and local agencies input, newly constructed development versus development pre-dating 1978, and the cost per benefited residence.

Traffic noise analysis consists of the following steps:

- Identification of noise-sensitive receptors such as residences, parks, churches, schools, libraries and hospitals.
- Completion of a noise measurement survey to determine the existing noise levels at the sensitive receptors or acoustically-equivalent locations.
- Modeling the future noise levels using SOUND 32, a Caltrans-approved software.
- Determination of feasible and reasonable noise abatement measures for areas affected by the project.

2.2.5.1 Affected Environment

Caltrans prepared a Noise Analysis, dated August 11, 2003, for the project. Caltrans also prepared a Supplemental Noise Study of the Wasco Cemetery, dated June 14, 2006.

Segment 1 of the project covers the area between the Jumper Avenue alignment and Magnolia Avenue. The area is mostly rural. The primary land use is agriculture. However, there are three other important uses within this segment of the project: a state prison, a golf course, and a cemetery. Within Segment 1, three single-family residences, a golf course and a cemetery were identified as sensitive noise receptors.

Segment 2 covers the area between Magnolia Avenue and “F” Street (State Route 43-South). This area contains a mix of commercial uses oriented to the local population and the traveling public. Some single-family homes are scattered through the older eastern portion of the area. The area between Central and Magnolia avenues is in agricultural use. Within Segment 2, one single-family residence between Central and Magnolia avenues and the commercial and residential area between Central Avenue and “F” Street (State Route 43-South) were identified as sensitive receptors.

Segment 3 covers the area between “F” Street (State Route 43-South) and “J” Street (State Route 43-North). Commercial and industrial uses lie in this area as well as an underpass of the Burlington Northern/Santa Fe Railroad. See Figure 2-5. The entire industrial area between “F” Street (State Route 43-South) and “J” Street (State Route 43-North) was identified as a sensitive receptor in Segment 3.

Impacts

The traffic noise analysis for the proposed project was prepared according to the Caltrans Traffic Noise Analysis Protocol. Caltrans identified eight sensitive noise receptors (a golf course, cemetery, single-family residences, and commercial and industrial areas) within the project limits.

Three single-family residences, a golf course and a cemetery were identified as sensitive receptors in Segment 1. One single-family residence between Central and Magnolia avenues and the commercial and residential area between Central Avenue and “F” Street (State Route 43-South) were identified as sensitive receptors in Segment 2. The industrial area between “F” Street (State Route 43-South) and “J” Street (State Route 43-North) was identified as a sensitive receptor in Segment 3.

Without the project, future traffic noise levels are predicted to range from 64.4 to 73.0 decibels, an increase of 3.5 to 7.0 decibels over existing conditions. If this project is built, future traffic noise is predicted to increase 2.6 to 6.0 decibels. Future traffic noise levels with the project, but without abatement, are predicted to range from 63.6 to 72.0. See Table 2.11.

The difference between the predicted noise levels with the project and the predicted noise levels without the project would not be distinguishable by the human ear; in addition, the difference would be even lower at five locations with the project. The noise abatement criterion for residential, recreational and other noise sensitive receptors such as cemeteries and churches is 67 decibels, and for commercial and industrial receptors, 72 decibels. Because the predicted noise levels exceed the noise abatement criteria, soundwalls must be considered.

Table 2.11 Noise Impact Analysis

Receptor Number and Location	Existing Hourly Noise Level (dBA)	Predicted Noise Level without Project (dBA)	Predicted Hourly Noise Level with Project (dBA)	Feasible/ Reasonable
#1 – Golf course on the north side of State Route 46	66	73	72	Not a place of frequent human use. Individuals would not benefit from a reduced noise level.
#2 - Cemetery on the north side of State Route 46	Front Quarter	63.1	66.6	Does not meet the criteria for noise abatement.
	Midpoint	60.6	64.4	
#3 – Single-family residence on the north side of State Route 46	66	73	72	Yes/No
#4 – Single-family residence on the north side of State Route 46	68.8	73	72	Yes/No
#5 – Single family residence on the north side of State Route 46	68	73	72	Yes/No
#6 – Single-family residence on the south side of State Route 46	64	68	70	Yes/No
#7 – Commercial and residential areas on the north and south side of State Route 46 from Central Avenue to "F" Street (State Route 43-South)	64	68	70	Yes/No
#8 – Commercial and industrial area on the north and south side of State Route 46 from "F" Street (State Route 43-South) to "J" Street (State Route 43-North)	64	68	70	Yes/No

dBA = the level of sound pressure measured in decibels

Avoidance, Minimization and/or Abatement Measures

In Segment 1, three single-family residences, a golf course and a cemetery were identified as sensitive receptors. For the three single-family residences on the north side of State Route 46, Caltrans concluded that soundwalls would not be feasible because soundwalls would block access to the property; breaks or gaps in a continuous soundwall would make the wall ineffective. The golf course is not considered a place of frequent human use where a lowered noise level would be of benefit. The cemetery does not meet the noise abatement criteria. Future noise levels at the cemetery with the project (65.7 decibels) would not approach (come within 1 decibel) or exceed the noise abatement criteria (67 decibels) for this type of use as defined by the Caltrans Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (October 1998).

In Segment 2, one single-family residence between Central and Magnolia avenues and the commercial and residential area between Central Avenue and “F” Street (State Route 43-South) were identified as sensitive receptors. Caltrans concluded that soundwalls would not be feasible for the single-family residence between Central and Magnolia avenues because soundwalls would block access to the property.

In addition, Caltrans concluded that soundwalls would not be feasible in the commercial and residential areas between Central Avenue and “F” Street (State Route 43-South) because soundwalls would block access to driveways and local cross-streets. Creating breaks or gaps within a continuous soundwall would make the wall ineffective. Noise abatement is not normally considered reasonable for commercial areas.

In Segment 3, the existing and predicted noise levels do not approach or exceed the noise abatement criteria.

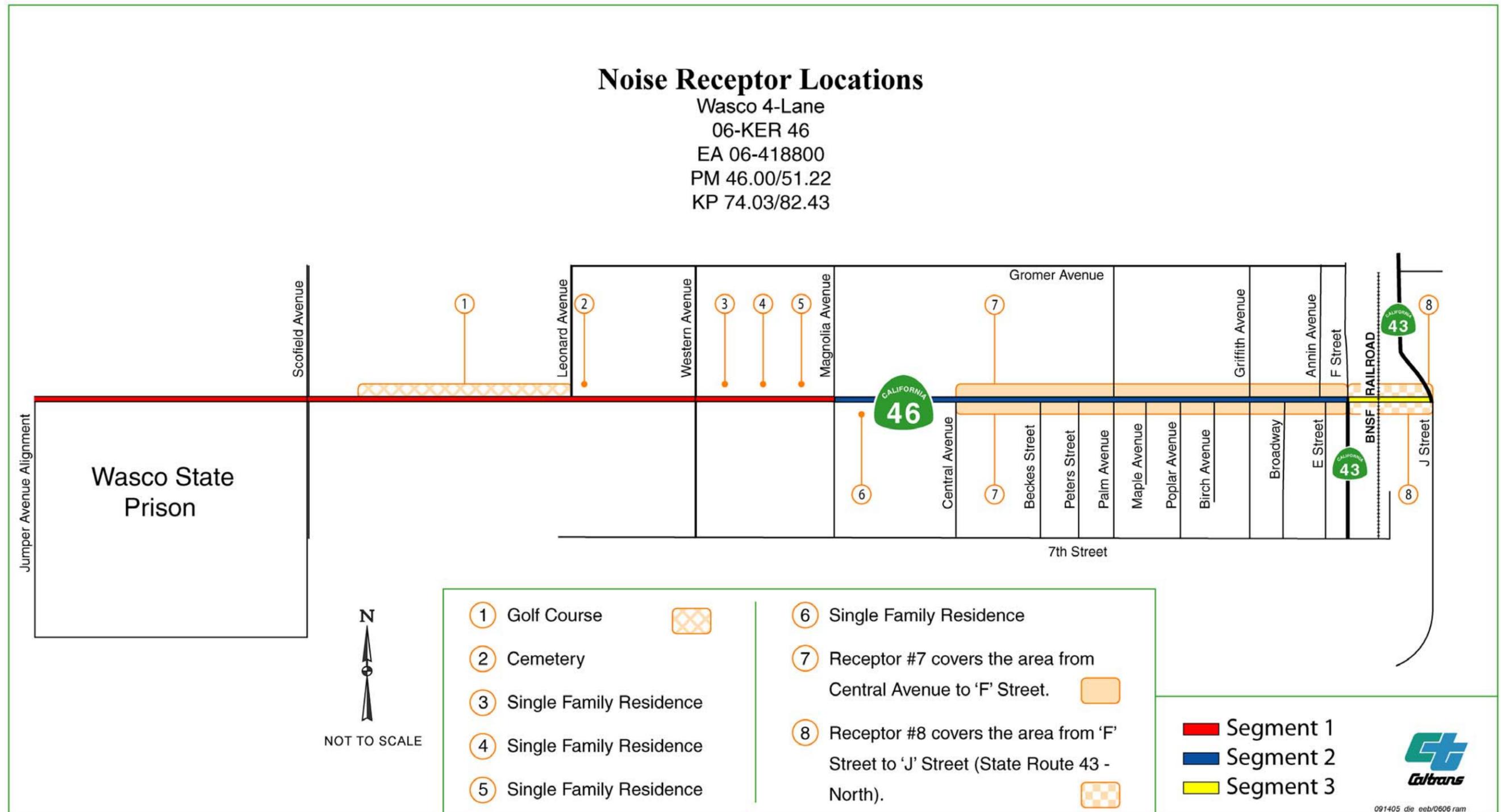


Figure 2-5. Noise Receptor Locations



2.3 Biological Environment

2.3.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation.

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

A Biological Assessment was completed for the project in April 2005, and a Natural Environment Study was completed in April 2005.

Affected Environment

Wasco sits in north-central Kern County at an elevation of about 91 meters (300 feet) and is about 48 kilometers (30 miles) northwest of Bakersfield.

The climate of Wasco is semiarid and is characterized as Mediterranean, with long, hot, dry summers. Winters are cool and have varying periods of rain, fog and clear frosty weather. The average maximum temperature is 25.7 degrees Celsius (78.3 degrees Fahrenheit); the average minimum temperature is 9.7 degrees Celsius (49.5 degrees Fahrenheit). Precipitation occurs mainly from November to April. Average annual precipitation is 17 centimeters (6.79 inches).

Four vegetation types and associated wildlife habitats occur within the biological study area:

- fallow agricultural fields
- orchards and vineyards
- annual row crops
- disturbed non-native grasslands

The remaining land is classified as “urban/developed land” and is not considered a vegetation type, but does provide limited wildlife habitat for common species. All habitats within the biological study area have been substantially altered by human activity and generally support non-native plant species with a low diversity of native wildlife.

Fallow Agricultural Fields

Fallow agricultural fields in the area are composed of mainly non-native annual grasses and forbs. Common plant species in the area include wild oats (*Avena fatua*), ripgut brome (*Bromus rigidus*), Italian rye grass (*Lolium multiflorum*), filaree (*Erodium moschatum*), common groundsel (*Senecio vulgaris*), bermudagrass (*Cynodon dactylon*), puncturevine (*Tribulus terrestris*), black mustard (*Brassica nigra*), common Russian thistle (*Salsola tragus*), and a few non-native ornamental trees, such as Chinese tree of heaven (*Ailanthus altissima*).

Fallow agricultural fields provide habitat for the mourning dove (*Zenaida macroura*), western scrub jay (*Aphelocoma coerulescens*), common crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), and Brewer's blackbird (*Euphagus cyanocephalus*). This habitat type also supports small mammals such as the California ground squirrel (*Citellus beecheyi*), deer mouse (*Peromyscus maniculatus*), house mouse (*Mus musculus*), Botta pocket gopher (*Thomomys bottae*) and other burrowing mammals. Non-native rats (*Rattus rattus*) and feral cats (*Felis catus*) may also use this habitat for foraging and refuge.

Orchards and Vineyards

Orchards are the dominant vegetation/habitat type in the biological study area. Wildlife habitat provided by orchards depends on the management practices used. The orchards in the biological study area appear to be intensively managed. It was noted during the biological surveys that non-native vegetation was restricted to narrow strips between rows of trees. Lack of cover makes the orchards less suitable for small mammals in the disturbed areas. Botta pocket gophers are relatively common despite the sparse vegetation and flood irrigation. Intensive management practices also make the orchards unsuitable for most bird species common to the area.

Annual Row Crops

Annual row crops such as carrots, cotton, potatoes, and sugar beets exist in the biological study area. Non-native grasses and forbs are confined to narrow strips near the edges of the fields. Wildlife species are not likely to use these areas except for intermittent foraging or movement.

Disturbed Non-native Grasslands

Disturbed grasslands consisting of non-native vegetation dominate the Caltrans right-of-way. Plants common to these areas have adapted to frequent disturbance and typically consist of non-native species. Some of the plant species observed in

disturbed non-native grasslands within the biological study area included prickly lettuce (*Lactuca serriola*), annual bursage (*Ambrosia acanthicarpa*), cheeseweed (*Malva neglecta*) and bristly foxtail (*Setaria verticillata*). Terrestrial vertebrate species that occur in these areas would generally be the same as those occurring in nearby orchards and fields and near residences.

The following invasive plant species were identified within the biological study area: silverleaf nightshade (*Solanum elaeagnifolium*), common Russian thistle (*Salsola tragus*), bermudagrass (*Cynodon dactylon*), Johnsongrass (*Sorghum halepense*) and puncturevine (*Tribulus terrestris*). These species are identified in the State of California Department of Food and Agriculture Noxious Weed List (updated May 17, 2004). There are no invasive plant species from the federal weed list (updated September 8, 2000).

Urban and Residential Development

The remaining portion of the biological study area is dominated by urban and residential development. Buildings, parking lots and roads that support very little natural vegetation occupy the area. These areas are not suitable for most wildlife species due to frequent disturbance, feral and domesticated cats and dogs (*Canis familiaris*), and the lack of foraging, nesting and breeding habitats. Wildlife that use this type of habitat include species such as the opossum (*Didelphis virginiana*), common crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*) and various sparrow species.

Migration Corridors

A literature search and a field survey for the project determined the biological study area is not within any migration corridors. A search of the U.S. Fish and Wildlife Service list and California Department of Fish and Game California Natural Diversity Database concluded that no special-status natural communities were within the biological study area or adjacent lands. A field survey of the biological study area was conducted, and no natural habitat was observed.

Waterways

No aquatic resources exist within the project area.

Impacts

No natural communities of special concern or critical habitat would be affected by the proposed project.

Avoidance, Minimization and/or Mitigation Measures

No natural communities of special concern or critical habitat exist within the biological study area or adjacent lands. Therefore, no mitigation is anticipated.

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 Fisheries, and the California Department of Fish and Game are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.3 below. All other special-status animal species are discussed here, including California Department of Fish and Game fully protected species and species of special concern, and U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Fisheries 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 1601–1603 of the Fish and Game Code
- Sections 4150 and 4152 of the Fish and Game Code

In addition to state and federal laws regulating impacts to wildlife, there are often local regulations (for example, county or city) that need to be considered when developing projects. If work is being done on federal land (Bureau of Land Management or Forest Service, for example), then those agencies' regulations, policies, and Habitat Conservation Plans are followed.

Affected Environment

According to the sensitive-species lists obtained from the Sacramento Field Office of the U.S. Fish and Wildlife Service and the California Department of Fish and Game

Natural Diversity Database list, a total of 48 special-status animal species have the potential to occur within the Wasco SW and Wasco 1:24,000 U.S. Geological Survey topographical quadrangles.

Only two special-status animal species are likely to occur within the biological study area: the white-faced ibis (*Plegadis chihi*) and San Joaquin kit fox (*Vulpes macrotis mutica*). The white-faced ibis is discussed in this section and the San Joaquin kit fox is discussed in Section 2.3.3 Threatened and Endangered Species.

In addition to these two special-status species, the listings obtained from the U.S. Fish and Wildlife Service and the California Department of Fish and Game contain 17 bird species subject to protection under the Migratory Bird Treaty Act (15 U.S. Code 703 - 711).

White-faced Ibis

The white-faced ibis, a federal and state species of concern, inhabits shallow freshwater marshes. This bird forages in fresh emergent wetland, shallow lake waters and muddy grounds of wet meadows, and irrigated or flooded pastures and croplands. It prefers to nest in dense marsh vegetation near foraging areas in shallow water or muddy fields.

There are no reported occurrences of this species within the biological study area. However, a dead ibis was found adjacent to the study area near the intersection of State Route 46 and Wildwood Avenue during spotlighting surveys for the San Joaquin kit fox. Potential suitable foraging habitat exists for this species within the biological study area, but project impacts are not likely to lead toward the listing of this species.

Impacts

No direct, indirect or cumulative effects to animal species, except the San Joaquin kit fox (see Section 2.3.3 Threatened and Endangered Species below), are anticipated due to the following:

- Current records of listed species do not exist within the biological study area or adjacent lands.
- No suitable habitat exists within the biological study area or adjacent lands.
- No observations of other special-status species were made during field surveys and visits, with the exception of the white-faced ibis.

- Pre-construction surveys would be performed to confirm the findings of the Natural Environment Study.

Avoidance, Minimization and/or Mitigation Measures

Protection measures for migratory birds and the San Joaquin kit fox (see below) would be included in the construction contract special provisions. Pre-construction surveys would be performed to confirm the findings of the Natural Environment Study.

2.3.3 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act, U.S. 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 upon which they depend.

Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Fisheries to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take permit. Section 3 of 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 California Endangered Species 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 projects 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 California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

Caltrans completed a Biological Assessment for the project in April 2005.

San Joaquin Kit Fox

The San Joaquin kit fox is a small, nocturnal fox resembling a small lanky dog with disproportionately large ears. It is a federally endangered and state threatened animal. For cover and denning, the San Joaquin kit fox may dig its own den in loose soil, use existing dens or use man-made structures such as culverts and pipes.

This species’ range consists of suitable habitat on the San Joaquin Valley floor and in the surrounding foothills of the Coast Range and the Sierra Nevada and Tehachapi mountains. The San Joaquin kit fox is associated with the following communities: valley sink scrub, interior Coast Range saltbush scrub, upper Sonoran subshrub scrub, annual grasslands and the remaining native grasslands.

The proposed project lies in the central portion of the San Joaquin kit fox range. However, large portions of this area have been converted into agricultural lands. In these areas, the San Joaquin kit fox is known to inhabit grazed, non-irrigated grasslands. The San Joaquin kit fox may also live next to and forage in tilled or fallow fields, irrigated row crops, orchard and vineyards.

The biological study area and adjacent lands are intensively cultivated, and no natural habitat is present. Disturbed habitat exists within the right-of-way for State Route 46. The proposed project area is composed mostly of agricultural lands. Although these agricultural areas are not suitable for denning, they provide potential foraging habitat for the San Joaquin kit fox. One adult kit fox was identified during the spotlight surveys conducted in June 2003, in an alfalfa field east of Leonard Avenue and south of Kimberlina Road, just over 1.6 kilometers (1 mile) from State Route 46.

Impacts

Potential Direct Effects

A direct effect on the San Joaquin kit fox is loss, fragmentation and degradation of foraging habitat. Potential San Joaquin kit fox foraging habitat would be lost or reduced by the highway widening and construction activities. There would be a permanent loss of approximately 11.03 hectares (26.31 acres) and a temporary loss of 3 hectares (7 acres) of potential foraging habitat. However, due to the large amount of agricultural lands remaining in the biological study area, as well as the likelihood of prey abundance, it is expected that the San Joaquin kit fox would not be greatly affected by the loss or temporary disturbance of potential foraging habitat in this area.

Noise and light pollution due to construction would be considered a direct effect on the San Joaquin kit fox. Therefore, construction activities would be limited to daytime hours to avoid potential impacts to the San Joaquin kit fox's nighttime habits.

Potential Indirect Effects

San Joaquin kit foxes are currently exposed to traffic along the existing highway, although no road-killed San Joaquin kit foxes were observed during the biological surveys. Projected increases in traffic may result in kit fox mortality, morbidity, disrupted social ecology, reduced productivity, displacement and altered space use.

Based on the effects of this project, Caltrans has determined that the project would have a "may affect, likely to adversely affect" determination for the San Joaquin kit fox.

The Biological Assessment for the project was sent to the Federal Highway Administration for review on May 4, 2005. The Federal Highway Administration sent a letter to the U.S. Fish and Wildlife Service requesting initiation of Section 7 formal consultation on May 31, 2005. Section 7 formal consultation has been completed, and a Biological Opinion was received from the U.S. Fish and Wildlife Service on January 18, 2006.

Avoidance, Minimization and/or Mitigation Measures

The Biological Assessment and the Natural Environment Study propose the following mitigation for the San Joaquin kit fox: (1) A Caltrans biologist or other qualified biologist would conduct an employee education program before groundbreaking activities; (2) construction contract special provisions for the San Joaquin kit fox would be followed by all persons on the project site; (3) construction activities would be conducted during daytime hours to avoid potential disruption of the nocturnal

activities of the San Joaquin kit fox; and (4) Caltrans proposes to mitigate for the permanent loss of 11.03 hectares (26.31 acres) of San Joaquin kit fox foraging habitat at a 1.1 to 1 ratio and the temporary loss of 3 hectares (7 acres) at a 0.5 to 1 ratio within an approved U.S. Fish and Wildlife Service mitigation bank. The total acreage to be acquired would be 13.63 hectares (32.44 acres).

2.3.4 Invasive Species

Regulatory Setting

On February 3, 1999, President Bill Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration guidance issued August 10, 1999 directs the use of the state’s noxious weed list to define the invasive plants that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

The following invasive plant species were found within the biological study area: silverleaf nightshade, common Russian thistle, bermudagrass, Johnsongrass and puncturevine. These species are identified in the State of California Department of Food and Agriculture Noxious Weed List. Silverleaf nightshade is classified as a “B” species, which means it is subject to state-endorsed holding action and eradication only when found in a nursery. Common Russian thistle, bermudagrass, Johnsongrass and puncturevine are classified as “C” species, which means that they are not subject to state enforcement except to provide cleanliness in nurseries. No species from the federal weed list were identified.

Impacts

Five invasive plant species were identified in the project area during the biological studies. Some of these invasive plant species may be removed due to construction of the project.

Avoidance, Minimization and/or Mitigation Measures

No mitigation is required for the project.

2.4 Construction Impacts

During construction of the project, various short-term circulation, noise, air, water quality and lighting impacts would occur. These impacts would be mitigated through standard Caltrans construction practices described below.

Affected Environment

Construction activities would occur on an 8.4-kilometer (5.22-mile) section of State Route 46 in Kern County, beginning at the junction of State Route 43-North at kilometer post 74.0 (post mile 46.0) and ending at the Jumper Avenue alignment at kilometer post 82.4 (post mile 51.22), which runs along the west side of the Wasco State Prison property. The proposed project would widen the existing highway from two to four lanes and upgrade various intersections.

Impacts

The following discusses impacts of the project as a whole:

- Temporary traffic delays may occur during the construction of this project.
- No new glare, lighting or shadows are expected after construction.
- Construction noises include temporary noise from equipment and machinery during each phase of construction. The project would remove the existing street/sidewalk and relocate utilities. Grubbing and earthwork are necessary for constructing the new lanes/shoulders, relocating utilities, and constructing new traffic signals and sidewalks. The project would involve intermittent construction activities, so no single location would experience an extended period of construction-related noise. Construction would last for about 24 months.
- During construction, the proposed project would generate temporary dust and air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. However, the largest percentage of pollutants would be windblown dust generated during excavation, grading, hauling and various other activities. The impacts from these activities would vary each day as construction progresses. Dust and odor could cause occasional complaints.
- The National Pollutant Discharge Elimination System permit requires Caltrans to address the potential impacts of construction on water quality in the design and construction phases of the project.

Avoidance, Minimization and/or Mitigation Measures

Temporary lane closures as well as a detour to allow for reconstruction of the existing railroad underpass can be expected during construction. The project would be designed and staged to minimize impacts to access points for existing residences and businesses. A construction staging plan would be prepared as part of the project design plan to minimize disruption or delay to the public. Lane closures would be kept as brief as possible and inconvenience to the traveling public kept to a minimum. Scheduling construction work that requires lane closures during only non-peak hours would minimize delays due to construction activities.

Traffic safety would be maintained through the use of warning signs, portable message signs, detour signs, traffic controls, and public information. The Caltrans Public Affairs Office would keep the local media informed of construction progress and details pertaining to delays, closures and major changes in traffic patterns with information provided by the resident engineer.

The District 6 Transportation Management Center broadcasts a weekly Traffic Impact Summary Report, which contains information related to highway or lane closures due to highway construction or maintenance activities. The report goes to many public agencies such as the sheriff, police and fire departments, California Highway Patrol, and ambulance and transit services. The weekly reports are also sent out to various interested private entities such as local print media and radio/television stations, the California Trucking Association, and the American Automobile Association. Advance notification to the public through local news media and/or construction signs pertaining to anticipated traffic delay would allow highway users extra time to adjust their travel plans as necessary or find an alternate route that bypasses the construction zone.

A Construction Zone Enhanced Enforcement Program may be appropriate during certain operations during the project. This program involves the continuous presence of the California Highway Patrol in construction zones to serve as a reminder to motorists to slow down and use caution when traveling through work areas.

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specification, Section 7-1.OF, "Air Pollution Control," and Section 10, "Dust Control," require the contractor to comply with the rules, ordinances and

regulations of the San Joaquin Valley Unified Air Pollution Control District. A Dust Control Plan is required for this project.

Noise emissions would be controlled by local noise ordinances and noise control measures that may include, but are not limited to, the following:

1. Nighttime and weekend work is not anticipated.
2. Project-related facilities (such as equipment storage areas) or temporary roads associated with the construction would be located in areas that would not be disruptive to the community.
3. Compliance with Caltrans Standard Specifications Section 7-01I “Sound Control Requirements” would be required. Section 7-01I refers to mandatory mufflers for all internal combustion engines operated with the project and mandatory compliance with local noise ordinances.

Implementation of these noise control measures would effectively reduce community construction noise impacts.

During construction, a Storm Water Pollution Prevention Plan would be implemented to identify the sources of sediment and other pollutants that affect the quality of storm water discharges. The plan would also describe and ensure the implementation of best management practices to reduce or eliminate sediment and other pollutants in storm water as well as non-storm water discharges.

Erosion and water pollution issues must be addressed at each phase of the project from planning and design to the built and operational phases. Management measures for roads, highways and bridges would include using the most current Caltrans *Project Planning and Design Guide*, approved pollution prevention design measures and construction site best management practices to control discharges of pollutants to the maximum extent practicable.

Caltrans is required to submit the following to Region 5 of the Central Valley Regional Water Quality Control Board:

1. A Notification of Construction is to be submitted to the appropriate Regional Water Quality Control Board at least 30 days before the start of construction. The Notice of Construction reports the tentative start date, tentative duration, location

- of construction, description of the project, an estimate of the disturbed soil areas, and name and telephone number of the resident engineer in charge of the project.
2. A Storm Water Pollution Prevention Plan is to be prepared by the contractor and implemented during construction to the satisfaction of the resident engineer. The Storm Water Pollution Prevention Plan is subject to review by the Central Valley Regional Water Quality Control Board before any soil-disturbing activities are started and becomes a regulatory enforceable document.
 3. A Notice of Completion shall be submitted to the Central Valley Regional Water Quality Control Board upon completion of the construction and stabilization of the site. A project would be considered complete when the criteria for final stabilization in the State General Construction Permit are met.

2.5 Cumulative Impacts

2.5.1 Regulatory Setting

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

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

California Environmental Quality Act Guidelines Section 15130 describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts,

under California Environmental Quality Act, can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts, under National Environmental Policy Act, can be found in 40 Code of Federal Regulations Section 1508.7 of the Council of Environmental Quality regulations.

2.5.2 Affected Environment

Below is a list of Caltrans transportation improvement projects along State Route 46 that have been completed recently, are under construction or are in the project approval phase:

- Widening the existing two-lane highway to four lanes from State Route 43 to State Route 99-North (kilometer posts 82.4/93.0; post miles 51.2/57.8). A Project Initiation Document has been completed for this project. No additional funding has been approved for the project.
- An asphalt-concrete overlay and shoulder widening of the existing pavement from Interstate 5 to west of Kurt Road (kilometer posts 52.7/59.8; post miles 32.8/37.2). Project approval and the environmental document were completed June 30, 2004. No additional funding has been approved for the project.
- Widening the existing two-lane conventional highway to a four-lane expressway (kilometer posts 11.75/53.9; post miles 7.3/33.5). Segment 1 of the project is currently being designed.
- Widening the existing two-lane conventional highway to a four-lane expressway (kilometer posts 0.0/11.75; post miles 0.0/7.3). The project is currently being designed.
- Installation of traffic signals at the intersection of State Route 46 and Griffith Avenue in the City of Wasco (kilometer post 80.83; post mile 50.52). The City of Wasco received a Safe Routes to Schools grant to install traffic signals at the intersection of State Route 46 and Griffith Avenue. Caltrans requested changes in the flow line at the intersection. Caltrans is performing engineering oversight on the project and is working with the City to identify a source of funding to pay for the additional work. If the project continues to be delayed until near the time that the Wasco 4-Lane Widening project would be constructed, the signals would be included in the Wasco 4-Lane project as originally planned.

- The segment of State Route 46 between kilometer posts 59.8/74.03 (post miles 37.2/46.0) is designated as a four-lane expressway in the Caltrans Transportation Concept Report. There is no project planned to improve this section of State Route 46 at this time. The Kern Council of Governments may program a project to improve this section of the highway at a later date.

2.5.3 Impacts

Resources that could warrant a cumulative impact analysis for the proposed project are biology, growth, air quality, and farmland.

For impacts on biology, minimal cumulative effects are anticipated for the San Joaquin kit fox and are not likely to threaten this species due to the lack of quality habitat and proximity of urban areas. The proposed project would increase the capacity of the existing road. However, there is no development contingent on the proposed project, and there are no other projects in the area in which cumulative impacts to the San Joaquin kit fox are anticipated.

The City of Wasco is planning for a growth rate of approximately 3 % per year. The City of Wasco has indicated that there are currently no projects proposed along State Route 46. The Kern County General Plan designates the area outside of the city for agriculture. No development plans are being processed by Kern County for that area.

The following discussion evaluates the impacts of the project as a whole.

The proposed widening of State Route 46 conforms to the circulation element of the 2002 Wasco General Plan that envisions the highway as a four-lane arterial. The circulation element of the Kern County General Plan conforms to the Caltrans 2001 Transportation Concept Report, which indicates the ultimate concept for this segment of State Route 46 is a four-lane expressway.

This capacity-increasing project is not exempt from the requirement that an air quality conformity determination be made. The design concept and scope of the proposed project are consistent with the project description in the 2004 Regional Transportation Plan, the Preliminary Environmental Analysis Report, and the assumptions in the Kern Council of Governments' regional emissions analysis. The project does not interfere with the timely implementation of traffic control measures. The improvement in the Level of Service for the mainline highway and at the intersections in the project area would reduce emissions and provide an overall air quality benefit

to the region. Also, wider shoulders on the highway would create less dust, reducing the amount of particulate matter (PM₁₀ and PM_{2.5}) in the air.

The proposed project would reduce the amount of farmland in production. The project would require taking slivers off of existing agricultural parcels, but would not result in the full acquisition or severance of any farm operation. This project, in combination with the other improvement projects proposed for State Route 46, would result in improved farm-to-market access for the region.

Installing a traffic signal at State Route 46 and Griffith Avenue would improve pedestrian safety, especially for children going to and from school. The traffic signal would not only improve pedestrian safety, it would create community cohesion by linking an isolated residential area north of State Route 46 to the main part of the community south of the highway.

There are no cumulative impacts associated with this project. Adding two lanes to State Route 46 would accommodate expected urban growth in Wasco and would not change the growth pattern. The relationship between the proposed project and growth in the area is expected to be one of accommodation of planned growth, rather than growth inducement. Local development, in conformance with existing city and county plans, can be expected to occur, particularly in areas designated for future urban development.

The transportation projects proposed for State Route 46 are capacity-increasing, safety and rehabilitation projects that have little or no effect on the area except to improve the highway.

Chapter 3 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process 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 a public information meeting. This chapter summarizes the results of Caltrans' efforts to identify, address and resolve project-related issues through early and continuing coordination.

California Department of Fish and Game

On July 29, 2003, Caltrans staff discussed the project with the California Department of Fish and Game Associate Wildlife Biologist for the Tehachapi District. Fish and Game expressed no biological concerns with the project due to the urban nature of the project and the lack of natural habitat.

On August 18, 2001, Caltrans discussed the project with the Staff Environmental Scientist/Habitat Conservation to determine if a 2081 permit would be necessary for the project. Fish and Game indicated that a 2081 permit would be necessary only if there were San Joaquin kit fox denning habitat present in the project area.

California State Historic Preservation Officer

The California State Historic Preservation Officer concurred on February 13, 2004, that 33 properties within the proposed Wasco 4-Lane Widening project were not eligible for the National Register of Historic Places. See letter in Appendix C.

City of Wasco

City of Wasco staff provided information on land use, zoning, circulation, proposed development, public works projects, transit service, emergency services, and Williamson Act parcels in the project area. City staff also participated in the project as members of the Project Development Team.

Kern Council of Governments

Staff from the Kern Council of Governments participated in the project as a member of the Project Development Team.

Kern County Agricultural Commissioner

During a telephone conversation on March 23, 2005, Sam Vorhees, Supervising Agricultural Biologist, provided information on the types of crops grown in the area around Wasco.

Kern County Environmental Health Services Department

Kern County Environmental Health Services Department staff provided information regarding the history of parcels as it related to hazardous waste issues. This included the regulatory history and detailed release of information regarding leaking underground storage tanks and identification of underground storage tanks as well as closure letters for those sites.

Kern County Planning Department

Kern County Planning Department staff provided information on land use and zoning on unincorporated parcels in the project area, circulation, proposed development, and Williamson Act parcels in the project area.

Kern County Roads Department

Kern County Roads Department staff participated in the project as members of the Project Development Team.

Native American Heritage Commission

A Caltrans archaeologist sent a letter about the project to the Native American Heritage Commission. The response from the Native American Heritage Commission stated that no Native American cultural resources were known within the project vicinity.

Native American Groups

On March 14, 2002, a Caltrans archaeologist sent letters to Phillip Hunter, Chairperson of the Tule River Indian Tribe; Ron Wermuth, Chairperson of the Kern Valley Indian Community; and three interested individuals: Robert L. Gomez, Jr., Paul Varela, and Delia Dominguez.

No response was received from any of the tribal groups or interested individuals.

Public Cemetery District Number 1 of Kern County

Timothy Unruh, Manager of Public Cemetery District Number 1 of Kern County, provided information on the number of burial plots available at Wasco Memorial Park. In addition, Mr. Unruh provided copies of district minutes from a 1985 meeting with Caltrans staff concerning a previous Caltrans study of State Route 46 as it related to Wasco Memorial Park.

San Joaquin Valley Modeling Coordinating Committee

Under the new transportation conformity rule criterion (40 Code of Federal Regulations 93.123(b)(1)), the Wasco 4-Lane Widening project is considered a Project of Air Quality Concern. Caltrans prepared a PM_{2.5} Hot Spot Conformity Assessment for the Kern 46/Wasco 4-Lane Project for consultation with the San Joaquin Valley Modeling Coordinating Committee. At its meeting on September 14, 2006, the committee concurred with Caltrans' finding that future new or worsened PM_{2.5} and PM₁₀ violations of any standards are not anticipated in the project area.

A notice inviting public comment on the impact of the project on PM_{2.5} was published in *El Popular* on September 1, 2006, and the *Bakersfield Californian* and the *Wasco Tribune* on September 5, 2006. The comment period closed on October 5, 2006. No comments were received.

Semitropic Water Storage District

On November 5, 2003, Caltrans staff met with the District Engineer to discuss possible borrow sites for the project.

Southern San Joaquin Valley Information Center of the California Historical Resources Information System

The information center, housed at California State University, Bakersfield, provided data on previous cultural resource investigations and known resources within a one-mile radius of the project area.

U.S. Fish and Wildlife Service

On September 10, 2002, by electronic mail, Caltrans contacted the Senior Staff Biologist for Kern County. Caltrans informed the U.S. Fish and Wildlife Service of its proposed survey method for the San Joaquin kit fox. Caltrans requested to be exempt from one of the three survey techniques for the San Joaquin kit fox because scent stations could be vandalized due to the urban nature of the project. Caltrans also informed the Senior Staff Biologist that a botanical survey would be conducted but,

due to the lack of native habitat, a blunt-nosed leopard lizard and a small mammal survey would not be conducted.

On September 11, 2002, by electronic mail, the Senior Staff Biologist concurred with Caltrans' planned San Joaquin kit fox survey approach.

U.S. Natural Resources Conservation Service

On November 18, 2005, Caltrans met with Mark Davis, District Conservationist, with the Natural Resources Conservation Service in Bakersfield, California. Mr. Davis assisted in the preparation of the Farmland Conversion Impact Rating, Form NRCS-CPA-106, for the project. See form in Appendix E.

Public Information Meeting

A public information meeting was held on April 25, 2001, at the Thomas Jefferson Middle School Gymnasium-Wasco Recreation Center at 305 Griffith Avenue in Wasco. The meeting, held from 4:00 p.m. to 7:00 p.m., was conducted in an open house format to receive as much input from the public as possible.

Invitations for the public to participate in the public information meeting were published in the *Bakersfield Californian* on April 4 and April 11, 2001. The invitation was also published in the local Spanish-language paper, *El Popular*, and ran the weeks of March 30-April 5, April 13-19, and April 20-26, 2001. In addition, property owners along State Route 46 in the project area were sent individual invitations.

The public information meeting took place in the Thomas Jefferson Middle School Gymnasium-Wasco Recreation Center on the ground level. Signs were placed outside, directing visitors to the meeting. Caltrans personnel were seated at the room entrance to greet members of the public and encourage them to sign in and take handouts. Handout material included a project information sheet, comment cards for submission at the public information meeting or by return mail, and various right-of-way materials. The public was directed to view displays and encouraged to ask questions.

Approximately 40 local residents, property owners, agency representatives, local government representatives and business owners attended the meeting. Caltrans Design, Environmental and Right-of-Way staffs addressed the questions and concerns of those in attendance.

Various displays around the room explained the proposed project, traffic data, the environmental process and the potential impacts of each alternative/alignment. Thirty-foot-long aerial photographs in the center of the room showed designs of the build alternatives: three build alternatives for Segment 1, three of the 12 build alternatives for Segment 2, and three build alternatives for Segment 3. Also displayed were cross-sections of the three build alternatives for Segment 1, the 12 build alternatives for Segment 2, and three build alternatives for Segment 3.

Comment cards were provided so attendees could provide their written comments that evening. The comment card itself requested that comments be submitted no later than May 9, 2001. Seventeen written comments were received at the meeting. Three additional comments were mailed to Caltrans after the meeting. Three comment cards were submitted with no comments. No additional correspondence or letters were mailed to Caltrans after the meeting.

The comments covered a number of subjects. Many of the comments expressed a preference for a specific alternative in one of the different segments of the project and indicated that construction of the project should be expedited. Many comments also expressed concerns about potential impacts to existing businesses. Some individuals were concerned about the effects of the project on pedestrian safety, especially for children crossing the highway at Griffith Avenue on the way to school. Some comments stated the need for traffic signals at Griffith Avenue.

Many comments expressed concern about the impacts to existing parking. A couple of comments related to impacts on agriculture, and a few comments contained questions about compensation for right-of-way acquisitions.

All questions and requests for information were answered or fulfilled. No opposition to the project came forward.

Public Hearing

A public hearing was held on March 23, 2006, at the Thomas Jefferson Middle School Gymnasium-Wasco Recreation Center at 305 Griffith Avenue in Wasco. The meeting, held from 4:00 p.m. to 7:00 p.m., was conducted in an open house format to receive as much input from the public as possible.

Invitations for the public to participate in the public hearing were published in the *Bakersfield Californian* on March 16 and March 17, 2006. The invitation ran in the *Wasco Tribune* on February 22 and March 1, 2006. The invitation also ran in the local Spanish-language paper, *El Popular*, and ran the weeks of February 23 and March 17, 2006. In addition, business owners and property owners along State Route 46 in the project area were sent individual invitations.

The public hearing took place in the gymnasium-recreation center on the ground level for easy access. Signs were placed outside, directing visitors to the meeting. Caltrans personnel were seated at the room entrance to greet members of the public and encourage them to sign in and take handouts. Handouts included a project information sheet, comment cards for submission at the public hearing or by return mail, and various right-of-way materials. The public was directed to view displays and encouraged to ask questions and provide testimony on the project either in writing or to a court reporter who was present at the hearing.

Approximately 33 local residents, property owners, agency representatives, local government representatives and business owners attended the hearing. Caltrans Design, Environmental Planning and Right-of-Way staffs addressed the questions and concerns raised.

Various displays around the room explained the proposed project, traffic data, the environmental process and the potential impacts of each alternative/alignment. Thirty-foot-long aerial photographs in the center of the room showed designs of the preferred alternatives:

- For Segment 1, Alternative 1 between Magnolia Avenue and Scofield Avenue, transitioning to a rural expressway west of Scofield Avenue.
- For Segment 2, Alternative 9b.
- For Segment 3, Alternative 11a.

Also displayed were cross-sections of the three build alternatives for Segment 1, the four build alternatives for Segment 2, and three build alternatives for Segment 3.

Public input was encouraged. Comment cards were provided so attendees could provide their written comments that evening or submit them by mail (or email) no later than April 5, 2006. No written comments were received at the hearing. The court reporter recorded oral comments from four individuals during the hearing. Three comments were mailed to Caltrans after the hearing.

In addition, letters were received from four public agencies before the public hearing. Five comments were received by telephone before the public hearing.

The comments covered a number of subjects. Many of the comments expressed a preference for a specific alternative in one of the different segments of the project and indicated that construction of the project should be expedited. Many comments also expressed concerns about potential impacts to existing businesses. Some individuals were concerned about the effects of the project on pedestrian safety, especially for children crossing the highway at Griffith Avenue on the way to school. Some comments stated the need for traffic signals at Griffith Avenue.

Many comments expressed concern about the impacts to existing parking. A couple of comments related to impacts on agriculture, and a few comments contained questions about compensation for right-of-way acquisitions. Two individuals expressed opposition to the project.

All questions and requests for information were answered or fulfilled.

Appendix I contains the comments received and responses to the comments.



Chapter 4 List of Preparers

The following Caltrans Central Region staff prepared this document:

Mehran Akhavan, Project Manager. B.S., Civil Engineering, California State University, Fresno; 10 years transportation experience. Contribution: Project Manager.

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Rebecca Bakhoud, Transportation Engineering Technician. B.A., Liberal Studies/Education, Minor in Mathematics, California State University, San Bernardino; 2 years CADD/Microstation support and visual design experience. Contribution: Prepared graphics.

Richard Balzer, Associate Landscape Architect. B.S., Landscape Architecture, California Polytechnical State University, San Luis Obispo; 3 years experience in storm water quality. Contribution: Wrote the Storm Water Pollution Prevention Plan Project Report Study.

Lou Birdwell, Associate Right-of-Way Agent. B.A., Business Administration, Texas Tech University; 15 years experience with Caltrans Right-of-Way. Contribution: Prepared the Draft Relocation Impact Report and the Final Relocation Impact Statement.

Patrick Boyd, Landscape Associate. B.L.A., California Polytechnical State University, San Luis Obispo; 3 years experience in landscape architecture. Contribution: Wrote the Report of Scenic and Aesthetic Review.

Christopher Brewer, Associate Environmental Planner (Architectural History). M.A., Public Administration, California State University, Bakersfield; 20.5 years experience in architectural history. Contribution: Conducted architectural history surveys.

Abdulrahim Chafi, Transportation Engineer. Ph.D., Environmental Engineering, California Coast University, Santa Ana; 5 years environmental technical studies experience. Contribution: Wrote the Air Quality technical report.

Supervised the studies and preparation of the Noise and Water Quality technical reports.

Catherine Crandall, Graphic Designer II. Fine Arts studies at State University of New York, Oneonta and Louisiana State University; 18 years graphics experience. Contribution: Prepared graphics.

Mike Day, Transportation Engineer (Civil). B.S., Civil Engineering, California State University, Fresno; 4 years experience in civil engineering. Contribution: Project Development Design Engineer.

Mike Donahue, Senior Environmental Planner. B.A., Geography, California State University, Fresno; 29 years urban and environmental planning experience. Contribution: Environmental Unit Supervisor.

R. Michael Duarte, Transportation Engineer (Civil). B.S., Civil Engineering, California State University, Fresno; 10 years design experience in civil engineering. Contribution: Project Development Design Engineer.

Rajeev Dwivedi, Associate Engineering Geologist. Ph.D., Environmental Engineering, Oklahoma State University, Stillwater; 14 years environmental technical studies experience. Contribution: Wrote the Water Quality report.

Jose D. Fernandez, Jr., Transportation Engineer. B.S., Civil Engineering, Mapua Institute of Technology; 13 years experience in civil engineering. Contribution: Wrote the Traffic Management Plan.

James Franks, Student Assistant. Student in Graphics Communication, Fresno City College; 1 year experience in visual design and public participation. Contribution: Prepared graphics.

Srikanth Gopalkrishnarao, P.E., Hydraulics Engineer. M.S., Environmental/Water Resources Engineering, South Dakota State University; 9 years experience in civil engineering. Contribution: Wrote the Location Hydraulics Study.

Peter Hansen, P.G., Engineering Geologist. B.S., Geology, California State University, Fresno; 1 year hazardous waste experience; 4 years paleontology/geology experience. Contribution: Paleontology coordinator. Wrote the Initial Paleontology Study and the Paleontology Study.

Kelly J. Hobbs, Associate Environmental Planner (Architectural History). B.A., History, California State University, Fresno; 5 years experience in California history. Contribution: Conducted architectural history surveys and wrote the Historic Resource Evaluation Report.

Bill Horge, Associate Environmental Planner. B.A., Chemistry, California State University, Fullerton; 16 years occupational safety and health experience. Contribution: Wrote the Noise technical report.

Rachel Kleinfelter, Associate Environmental Planner. B.A., Environmental Studies, Mills College; 11 years biology experience. Contribution: Conducted biological studies and wrote the Biological Assessment/Natural Environment Study.

Bill Quan Le, Transportation Engineer. B.S., Civil Engineering, University of New Orleans; 3 years experience in civil engineering. Contribution: Wrote the Safety Analysis.

John Y. Liu, Senior Transportation Engineer. M.S., Civil Engineering, University of California; 11 years experience in civil engineering. Contribution: Wrote the Pedestrian Study.

Daniel Lum, Transportation Engineer. B.A., Civil Engineering, California State University, Fresno; 2 years experience in traffic engineering. Contribution: Wrote the Operational Analysis.

Mandy Marine, Associate Environmental Planner. B.A., Anthropology, California State University, Fresno; 8 years cultural resources experience. Contribution: Native American Coordination.

Magdi Marzouk, Transportation Engineer (Civil). B.S., Civil Engineering, Ain Shams University, Cairo, Egypt; 4 years experience in civil engineering. Contribution: Project Development Design Engineer.

Shawn Ogletree, Environmental Planner. B.S., Environmental Conservation of Natural Resources, Texas Tech University; B.S., Wildlife/Fisheries Management, Texas Tech University; 5 years low-level radioactive waste experience; 4 years bird/mammal studies experience. Contribution: Conducted hazardous waste studies and wrote the Initial Site Assessment.

Alfredo V. Osuna, Transportation Engineer Technician. B.S., Mechanical Engineering, FEATI University, Manila, Philippine Islands; 4 years traffic engineering experience. Contribution: Wrote the Parking Study.

Richard Putler, Associate Environmental Planner. M.C.R.P., City and Regional Planning, California State University, Fresno; 5 years environmental planning experience. Contribution: Wrote the Initial Study/Environmental Assessment.

Cliff Raley, Civil Engineer/Professional Geologist. M.S., Geology, California State University, Fresno; B.A., Geology, California State University, Fresno; 20 years experience in environmental sciences. Contribution: Wrote the Supplemental Noise Study.

Scott Shaver, Senior Transportation Engineer. M.S., Civil Engineering, California State University, Fresno; 19 years experience in civil engineering. Contribution: Project Development Unit Supervisor.

Denise Thomas, Associate Environmental Planner. M.A., Anthropology, California State University, Chico; B.A., Anthropology, California State University, Chico; 7 years California and Great Basin archaeology experience. Contribution: Conducted archaeological surveys and wrote the Negative Archaeological Survey Report and the Negative Historic Property Survey Report.

Roger Valverde, Graphic Designer II. Certificate of Multimedia, Mount San Jacinto and California State University, Fresno; 23 years visual design and public participation experience. Contribution: Prepared graphics.

Juergen Vespermann, Senior Environmental Planner. Engineering Degree, Fachhochschule Muenster, Germany; 15 years transportation planning/environmental planning. Contribution: Environmental Unit Supervisor.

Rick Wiley, Environmental Planner. Fine Arts, American River College; 4 years art design, public participation experience. Contribution: Prepared graphics.

Juti Winchester, Associate Environmental Planner (Architectural History). Ph.D., Environmental History, Northern Arizona University; 1 year architectural history in California. Contribution: Conducted architectural history surveys.

Appendix A CEQA Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed 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.”

The California Environmental Quality Act requires that environmental documents determine significant or potentially significant impacts. In many cases, background studies performed in connection with the project indicate no impacts. A mark in the “no impact” column of the checklist reflects this determination. Any needed explanation of that determination is provided at the beginning of Chapter 2.



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

AESTHETICS - Would the project:

- | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building 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"/> |

AGRICULTURE 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. 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) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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?

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

d) Expose sensitive receptors to substantial pollutant concentration?

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

BIOLOGICAL RESOURCES - Would the project:

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

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

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

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

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

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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"/>
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COMMUNITY RESOURCES - Would the project:

a) Cause disruption of orderly planned development?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Be inconsistent with a Coastal Zone Management Plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

c) Affect lifestyles or neighborhood character or stability?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

d) Physically divide an established community?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

e) Affect minority, low-income, elderly, disabled, transit-dependent, or other specific interest group?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

f) Affect employment, industry, or commerce, or require the displacement of businesses or farms?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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g) Affect property values or the local tax base?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

h) Affect any community facilities (including medical, educational, scientific, or religious institutions, ceremonial sites or sacred shrines)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

i) Result in alterations to waterborne, rail, or air traffic?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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j) Support large commercial or residential development?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

k) Affect wild or scenic rivers or natural landmarks?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

l) Result in substantial impacts associated with construction activities (e.g., noise, dust, temporary drainage, traffic detours, and temporary access, etc.)?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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CULTURAL RESOURCES - Would the project:

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

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

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

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?

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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 material, 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"/> |

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"/> |

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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"/>
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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 checked="" type="checkbox"/>	<input type="checkbox"/>
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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"/>
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f) Otherwise substantially degrade water quality?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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"/>
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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"/>
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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"/>
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j) Inundation by seiche, tsunami, or mudflow?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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LAND USE AND PLANNING - Would the project:

a) 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"/>
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b) 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"/>
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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"/>
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b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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NOISE - Would the project:

- | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

POPULATION AND HOUSING - Would the project:

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

PUBLIC SERVICES -

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

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

RECREATION -

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

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

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Exceed, either individually or cumulatively, a level of service standard 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 incomplete 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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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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f) Result in inadequate parking capacity?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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UTILITY 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 checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Result in 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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f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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g) Comply with federal, state, and local statutes and regulations related to solid waste?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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, or cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

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*Flex your power!
Be energy efficient!*

January 14, 2005

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, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

A handwritten signature in black ink that reads "Will Kempton".

WILL KEMPTON
Director

"Caltrans improves mobility across California"



Appendix C State Historic Preservation Officer Concurrence Letter

February 13, 2004

REPLY TO: FHWA040115A

Lynne Faraone, Chief
Central Region Cultural Resources Branch
Department of Transportation
2015 East Shields Avenue, Suite A-100
FRESNO CA 93726-5428

Re: State Route 46 Four-Lane Widening Project, Wasco, Kern County.

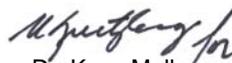
Dear Ms. Faraone:

Thank you for submitting to our office your January 13, 2004 letter and Historic Property Survey Report (HPSR) regarding the proposed State Route (SR) 46 four-lane widening project located adjacent to and within the City of Wasco in Kern County. The proposed project will extend along a 5.2 mile segment of SR 46 from Post Mile (PM) 46.00 to PM 51.22. The proposed project would involve the conversion of this segment from a two-lane highway to a four-lane conventional highway. Proposed improvements would include the construction of two additional lanes and two frontage roads, median installation, shoulder widening, and railroad underpass widening.

Pursuant to stipulation VIII.C.5 of the "Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California", Caltrans is seeking my comments on the eligibility of thirty-three (33) pre-1957 architectural properties located within the project APE for inclusion on the National Register of Historic Places (NRHP). A review of the submitted HPSR lead me to concur with Caltrans' determination that none of the 33 pre-1957 architectural properties located within the project APE are eligible for inclusion on the NRHP under any of the criteria established by 36 CFR 60.4. The properties have no strong associations with significant historical events or persons and are not examples of outstanding architectural design or function.

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.parks.ca.gov.

Sincerely,



Dr. Knox Mellon
State Historic Preservation Officer



Appendix D Special-Status Species Lists

Endangered and Threatened Species that May Occur in
or be Affected by Projects in the Selected Quads Listed Below

Reference File No. 1-1-01-SP-2284

Update

June 6, 2001

QUAD : 264C WASCO SW

Listed Species

Mammals

- giant kangaroo rat, *Dipodomys ingens* (E)
- Tipton kangaroo rat, *Dipodomys nitratoides nitratoides* (E)
- San Joaquin kit fox, *Vulpes macrotis mutica* (E)

Birds

- bald eagle, *Haliaeetus leucocephalus* (T)

Reptiles

- blunt-nosed leopard lizard, *Gambelia (=Crotaphytus) sila* (E)
- giant garter snake, *Thamnophis gigas* (T)

Amphibians

- California red-legged frog, *Rana aurora draytonii* (T)

Fish

- delta smelt, *Hypomesus transpacificus* (T)
- Sacramento splittail, *Pogonichthys macrolepidotus* (T)

Invertebrates

- vernal pool fairy shrimp, *Branchinecta lynchi* (T)
- valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)

Proposed Species

Birds

- mountain plover, *Charadrius montanus* (PT)

Species of Concern

Mammals

- San Joaquin (=Nelson's) antelope squirrel, *Ammospermophilus nelsoni* (CA)
- Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)
- greater western mastiff-bat, *Eumops perotis californicus* (SC)
- small-footed myotis bat, *Myotis ciliolabrum* (SC)
- long-eared myotis bat, *Myotis evotis* (SC)
- fringed myotis bat, *Myotis thysanodes* (SC)
- long-legged myotis bat, *Myotis volans* (SC)
- Yuma myotis bat, *Myotis yumanensis* (SC)
- Southern grasshopper mouse, *Onychomys torridus ramona* (SC)
- Tulare grasshopper mouse, *Onychomys torridus tularensis* (SC)
- San Joaquin pocket mouse, *Perognathus inornatus* (SC)
- Sierra Nevada red fox, *Vulpes vulpes necator* (CA)

Birds

- tricolored blackbird, *Agelaius tricolor* (SC)

western burrowing owl, *Athene cunicularia hypugea* (SC)
Aleutian Canada goose, *Branta canadensis leucopareia* (D)
ferruginous hawk, *Buteo regalis* (SC)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
American peregrine falcon, *Falco peregrinus anatum* (D)
white-faced ibis, *Plegadis chihi* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
southwestern pond turtle, *Clemmys marmorata pallida* (SC)
San Joaquin coachwhip (=whipsnake), *Masticophis flagellum ruddocki* (SC)
California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

western spadefoot toad, *Scaphiopus hammondii* (SC)

Fish

longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

California linderiella fairy shrimp, *Linderiella occidentalis* (SC)
molestan blister beetle, *Lytta molesta* (SC)

Plants

slough thistle, *Cirsium crassicaule* (SC)

QUAD : 264D WASCO

Listed Species

Mammals

giant kangaroo rat, *Dipodomys ingens* (E)
Tipton kangaroo rat, *Dipodomys nitratoides nitratoides* (E)
San Joaquin kit fox, *Vulpes macrotis mutica* (E)

Birds

bald eagle, *Haliaeetus leucocephalus* (T)

Reptiles

blunt-nosed leopard lizard, *Gambelia (=Crotaphytus) sila* (E)
giant garter snake, *Thamnophis gigas* (T)

Amphibians

California red-legged frog, *Rana aurora draytonii* (T)

Fish

delta smelt, *Hypomesus transpacificus* (T)
Sacramento splittail, *Pogonichthys macrolepidotus* (T)

Invertebrates

vernal pool fairy shrimp, *Branchinecta lynchi* (T)
valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)

Plants

California jewelflower, *Caulanthus californicus* (E) *

Proposed Species

Birds

mountain plover, *Charadrius montanus* (PT)

Species of Concern

Mammals

San Joaquin (=Nelson's) antelope squirrel, *Ammospermophilus nelsoni* (CA)
 Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)
 greater western mastiff-bat, *Eumops perotis californicus* (SC)
 small-footed myotis bat, *Myotis ciliolabrum* (SC)
 long-eared myotis bat, *Myotis evotis* (SC)
 fringed myotis bat, *Myotis thysanodes* (SC)
 long-legged myotis bat, *Myotis volans* (SC)
 Yuma myotis bat, *Myotis yumanensis* (SC)
 Southern grasshopper mouse, *Onychomys torridus ramona* (SC)
 Tulare grasshopper mouse, *Onychomys torridus tularensis* (SC)
 San Joaquin pocket mouse, *Perognathus inornatus* (SC)
 Sierra Nevada red fox, *Vulpes vulpes necator* (CA)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)
 western burrowing owl, *Athene cunicularia hypugea* (SC)
 Aleutian Canada goose, *Branta canadensis leucopareia* (D)
 ferruginous hawk, *Buteo regalis* (SC)
 little willow flycatcher, *Empidonax traillii brewsteri* (CA)
 American peregrine falcon, *Falco peregrinus anatum* (D)
 white-faced ibis, *Plegadis chihi* (SC)

Reptiles

silvery legless lizard, *Anniella pulchra pulchra* (SC)
 northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
 southwestern pond turtle, *Clemmys marmorata pallida* (SC)
 San Joaquin coachwhip (=whipsnake), *Masticophis flagellum ruddocki* (SC)
 California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

western spadefoot toad, *Scaphiopus hammondii* (SC)

Fish

Kern brook lamprey, *Lampetra hubbsi* (SC)
 longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

California linderiella fairy shrimp, *Linderiella occidentalis* (SC)
 molestan blister beetle, *Lytta molesta* (SC)

Plants

recurved larkspur, *Delphinium recurvatum* (SC)

KEY:

- (E) *Endangered* Listed (in the Federal Register) as being in danger of extinction.
- (T) *Threatened* Listed as likely to become endangered within the foreseeable future.
- (P) *Proposed* Officially proposed (in the Federal Register) for listing as endangered or threatened.
- (PX) *Proposed* Proposed as an area essential to the conservation of the species.
- Critical Habitat*
- (C) *Candidate* Candidate to become a proposed species.
- (SC) *Species of Concern* May be endangered or threatened. Not enough biological information has been gathered to support listing at this time.
- (MB) *Migratory Bird* Migratory bird
- (D) *Delisted* Delisted. Status to be monitored for 5 years.
- (CA) *State-Listed* Listed as threatened or endangered by the State of California.
- (*) *Extirpated* Possibly extirpated from this quad.
- (**) *Extinct* Possibly extinct.
- Critical Habitat* Area essential to the conservation of a species.

Appendix E Farmland Conversion Impact Rating

U.S. DEPARTMENT OF AGRICULTURE Natural Resources Conservation Service		NRCS-CPA-106 (REV. 3-02)	
FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS			
PART I (To be completed by Federal Agency)		3. Date Of Land Evaluation Request: 11-18-05 Segment 1 Sheet 1 of 1	
1. Name of Project: Wasco 4-Lane		5. Federal Agency Involved: Federal Highway Administration	
2. Proposed Land Use: State Highway		6. County and State: Kern County, California	
PART II (To be completed by NRCS)		1. Date Request Received By NRCS: 11-18-05 2. Person Completing Form: MARK DAVIS	
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: 972400 Average Farm Size: 1473
5. Major Crop(s): Cotton grapes, Almonds	6. Farmable Land In Government Jurisdiction Acres: 1044200%	7. Amount of Farmland As Defined in FPPA Acres: DATA NOT AVAILABLE	
8. Name of Land Evaluation System Used: CALIFORNIA-STORE System	9. Name of State or Local Site Assessment System: NONE	10. Date Land Evaluation Returned by NRCS: 11-18-05	
PART III (To be completed by Federal Agency)			
Alternative Corridor For Segment:			
A. Total Acres To Be Converted Directly		Corridor A: 12.22	Corridor B: 20.15
B. Total Acres To Be Converted Indirectly		Corridor C: 30.51	Corridor d: 0
C. Total Acres In Site		0	0
		12.22	20.15
		30.51	
PART IV (To be completed by NRCS) Land Evaluation Information			
A. Total Acres Prime And Unique Farmland		12.22	20.15
B. Total Acres Statewide Important or Local Important Farmland		0	0
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		DATA NOT AVAILABLE	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		DATA NOT AVAILABLE	
PART V (To be completed by NRCS) Land Evaluation Criterion			
Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)			
		68	68
		68	68
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (Criteria are explained in 7 CFR 658.5 b & c. For Non-Corridor project use form AD-1006)			
	Maximum Points	Corridor A	Corridor B
1. Area In Non-urban Use	(15)	7	7
2. Perimeter In Non-urban Use	(10)	10	10
3. Percent Of Corridor Being Farmed	(20)	10	10
4. Protection Provided By State and Local Government	(20)	0	0
5. Size Of Present Farm Unit Compared To Average	(10)	0	0
6. Creation Of Non-farmable Farmland	(25)	0	0
7. Availability Of Farm Support Services	(5)	5	5
8. On-Farm Investments	(20)	15	15
9. Effects Of Conversion On Farm Support Services	(25)	0	0
10. Compatibility With Existing Agricultural Use	(10)	0	0
TOTAL CORRIDOR ASSESSMENT POINTS		160	47
		47	47
		47	47
PART VII (To be completed by Federal Agency)			
Relative Value Of Farmland (From Part V)		100	68
Total Corridor Assessment (From Part VI above or local site assessment)		160	47
TOTAL POINTS (Total of above 2 lines)		260	115
		115	115
1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
5. Reason For Selection:			
Signature of Federal agency representative completing this form:			Date:
NOTE: Complete one form for each segment with more than one Alternate Corridor (See Instructions on reverse side)			
Form NRCS-CPA-106 (03-02)			

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(REV. 3-02)

**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)

1. Name of Project: Wasco 4-Lane

2. Proposed Land Use: State Highway

3. Date Of Land Evaluation Request: 11-18-05

4. Federal Agency Involved: Federal Highway Administration

5. County and State: Kern County California

6. Person Completing Form: MARK DAVIS

7. Segment: 2
Sheet 1 of 1

PART II (To be completed by NRCS)

3. Does the corridor contain prime, unique, statewide or local important farmland? YES NO
(If no, the FPPA does not apply - do not complete additional parts of this form)

4. Acres Irrigated: 972400 Average Farm Size: 1473

5. Major Crop(s): Cotton grapes
Almonds

6. Farmable Land In Government Jurisdiction Acres: 1044200

7. Amount of Farmland As Defined in FPPA Acres: DATA NOT AVAILABLE

8. Name of Land Evaluation System Used: CALIFORNIA STATE System

9. Name of State or Local Site Assessment System: NONE

10. Date Land Evaluation Returned by NRCS: 11-18-05

PART III (To be completed by Federal Agency)

	Alternative Corridor For Segment:			
	Corridor A	Corridor B	Corridor C	Corridor d
A. Total Acres To Be Converted Directly	0.92	1.18	1.32	2.19
B. Total Acres To Be Converted Indirectly	0	0	0	0
C. Total Acres In Site	0.92	1.18	1.32	2.19

PART IV (To be completed by NRCS) Land Evaluation Information

	Corridor A	Corridor B	Corridor C	Corridor d
A. Total Acres Prime And Unique Farmland	0.92	1.18	1.32	2.19
B. Total Acres Statewide Important or Local Important Farmland	0	0	0	0
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	DATA	NOT AVAILABLE	DATA	NOT AVAILABLE
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	DATA	NOT AVAILABLE	DATA	NOT AVAILABLE

PART V (To be completed by NRCS) Land Evaluation Criterion

Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	Corridor A	Corridor B	Corridor C	Corridor d
	67	67	67	67

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria
(Criteria are explained in 7 CFR 658.5 b & c. For Non-Corridor project use form AD-1006)

	Maximum Points	Corridor A	Corridor B	Corridor C	Corridor D
1. Area In Non-urban Use	(15)	0	0	0	0
2. Perimeter In Non-urban Use	(10)	1	1	1	1
3. Percent Of Corridor Being Farmed	(20)	2	2	2	2
4. Protection Provided By State and Local Government	(20)	0	0	0	0
5. Size Of Present Farm Unit Compared To Average	(10)	5	5	5	5
6. Creation Of Non-farmable Farmland	(25)	0	0	0	0
7. Availability Of Farm Support Services	(5)	5	5	5	5
8. On-Farm Investments	(20)	15	15	15	15
9. Effects Of Conversion On Farm Support Services	(25)	0	0	0	0
10. Compatibility With Existing Agricultural Use	(10)	0	0	0	0
TOTAL CORRIDOR ASSESSMENT POINTS	160	28	28	28	28

PART VII (To be completed by Federal Agency)

	Maximum Points	Corridor A	Corridor B	Corridor C	Corridor d
Relative Value Of Farmland (From Part V)	100	67	67	67	67
Total Corridor Assessment (From Part VI above or local site assessment)	160	28	28	28	28
TOTAL POINTS (Total of above 2 lines)	260	95	95	95	95

1. Corridor Selected: _____ 2. Total Acres of Farmlands to be Converted by Project: _____ 3. Date Of Selection: _____ 4. Was A Local Site Assessment Used? YES NO

5. Reason For Selection: _____

Signature of Federal agency representative completing this form: _____ Date: _____

NOTE: Complete one form for each segment with more than one Alternate Corridor
(See Instructions on reverse side)

Form NRCS-CPA-106 (03-02)

Appendix F Summary of Relocation Benefits

California Department of Transportation Relocation Assistance Program

RELOCATION ASSISTANCE ADVISORY SERVICES

The California Department of Transportation (Caltrans) will provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of Caltrans acquisition of real property for public use. Caltrans will assist displacees (displaced residents) in obtaining comparable, decent, safe and sanitary replacement housing by providing current and continuing information on sales price and rental rates of available housing. Non-residential displacees will receive information on comparable properties for lease or purchase.

Residential replacement dwellings will be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, displacees will be offered comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex or national origin, and are consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include supplying information concerning federal and state assisted housing programs, and any other known services being offered by public and private agencies in the area.

RESIDENTIAL RELOCATION PAYMENTS PROGRAM

The Relocation Payment Program will assist eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for, or incidental to, purchasing or renting a replacement dwelling, and actual reasonable expenses incurred in moving to a new location within 80 kilometers (50 miles) of displacee's property. Any actual moving costs in excess of 80 kilometers (50 miles) are the responsibility of the displacee. The Residential Relocation Program can be summarized as follows:

Moving Costs

Any displaced person lawfully in occupancy of the acquired property, regardless of the length of occupancy in the acquired property, will be eligible for reimbursement of moving costs. Displacees will be eligible to receive one of the following: (1) actual reasonable costs involved in moving themselves and personal property up to a maximum of 80 kilometers (50 miles); (2) a moving service authorization; (3) or a fixed payment based on a fixed moving

cost schedule determined by the number of furnished or unfurnished rooms of the displacement dwelling.

Purchase Supplement

In addition to moving and related expenses payments, fully eligible homeowners may be entitled to payments for increased costs of purchasing replacement housing. Homeowners who have owned and occupied their property for 180 days prior to the date of the first written offer to purchase the property may qualify to receive a price differential payment equal to the difference between Caltrans' offer to purchase their property and the price of a comparable replacement dwelling. In addition, homeowners may also 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. Also the interest differential must be based upon the "lesser of" either the loan on the displacement property or the loan on the replacement property. The maximum combination of these three supplemental payments that the owner-occupants can receive is \$22,500. If the calculated total entitlement (without the moving payments) is in excess of \$22,500, the displacee may qualify for the Last Resort Housing described below.

Rental Supplement

Tenants who have occupied the property to be acquired by Caltrans for 90 days or more, and owner-occupants who have occupied the property 90 to 180 days prior to the date of the first written offer to purchase, may qualify to receive a rental differential payment. This payment is made when Caltrans determines that the cost to rent a comparable and "decent, safe, and sanitary" replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the eligible occupant 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 limitation noted below under the "down payment" section (see below). The maximum amount of payment to any tenant of 90 days or more and any owner-occupant of 90 to 170 days, in addition to moving expenses, will be \$5,250. If the calculated total entitlement for rental supplement exceeds \$5,250, the displacee may qualify for the Last Resort Housing Program described below.

The rental supplement of \$7,500 or less will be paid in a lump sum, unless the displacee requests that it be paid in installments. The displaced person must 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 Caltrans-acquired property, whichever is later.

Down Payment

Displacees eligible to receive a rental differential payment may elect to apply it to a down payment for the purchase of a comparable replacement dwelling. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250, unless the Last Resort Housing Program is indicated. 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 Code of Federal Regulations 24.404) contain the policy and procedure for implementing the Last Resort Housing Program on federal aid projects. In order to maintain uniformity in the program, Caltrans has also adopted these federal guidelines on non-federal-aid projects. Except for the amounts of payments and the methods in making them, last resort housing benefits are the same as those benefits for standard relocation as explained above. Last resort housing has been designed primarily to cover situations where available comparable replacement housing, or when their anticipated replacement housing payments, exceed the \$2,520 and \$22,500 limits of the standard relocation procedures. In certain exceptional situations, last resort housing may also be used for tenants of less than 90 days. After the first written offer to acquire the property has been made, Caltrans will, within a reasonable length of time, personally contact the displacees to gather important information relating to:

- Preferences in area of relocation.
- Number of people to be displaced and the distribution of adults and children according to age and sex.
- Location of school and employment.
- Special arrangements to accommodate any handicapped member of the family.
- Financial ability to relocate into comparable replacement dwelling, which will house all members of the family decently.

The above explanation is general in nature and is not intended to be a complete explanation of relocation regulations. Any questions concerning relocation should be addressed to Caltrans. Any persons to be displaced will be assigned 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 the benefits or payments.

THE BUSINESS AND FARM RELOCATION ASSISTANCE PROGRAM

The Business and Farm Relocation Assistance Program provides aid in locating suitable replacement property for the displacee’s farm or business, including when requested, a

current list of properties offered for sale or rent. In addition, certain types of payments are available to businesses, farms, and non-profit organizations. These payments may be summarized as follows:

- Reimbursement for the actual direct loss of tangible personal property incurred as a result of moving or discontinuing the business in an amount not greater than the reasonable cost of relocating the property.
- Reimbursement up to \$1,000 of actual reasonable expenses in searching for a new business site.
- Reimbursement up to \$10,000 of actual reasonable expenses related to the reestablishment of the business at the new location.
- Reimbursement of the actual reasonable cost of moving inventory, machinery, office equipment and similar business-related personal property, including dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting personal property.

Payment “in lieu” of moving expense is available to businesses which are expected to suffer a substantial loss of existing patronage as a result of the displacement, or if certain other requirements such as inability to find a suitable relocation site are met. This payment is an amount equal to the average annual net earnings for the last two taxable years prior to relocation. Such payment may not be less than \$1,000 and not more than \$20,000.

ADDITIONAL INFORMATION

No relocation payment received will be considered as income for the purpose of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law (except for any federal law providing low-income housing assistance).

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 being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments will not be required to move unless at least one comparable “decent, safe and sanitary” replacement residence, open to all persons regardless of race, color, religion, sex or national origin, is available or has been made available to them by the state.

Any person, business, farm or non-profit organization, which has been refused a relocation payment by Caltrans, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or the Caltrans Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal council at his/her

expense. Information about the appeal procedure is available from Caltrans' Relocation Advisors.

The information above is not intended to be a complete statement of all of Caltrans' laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of Caltrans' relocation programs.

IMPORTANT NOTICE

To avoid loss of possible benefits, no individual, family, business, farm or non-profit organization should commit to purchase or rent a replacement property without first contacting a Caltrans Relocation Advisor at:

State of California
Department of Transportation, District 6
Relocation Assistance Program
Tower Building
855 M Street, 3rd Floor
Fresno, CA 93721



Appendix G Minimization and/or Mitigation Summary

Relocations

Any person (individual, family, corporation, partnership, or association) who moves from real property or moves personal property from real property as a result of the acquisition of the real property, or is required to relocate as a result of a written notice from the California Department of Transportation from the real property required for a transportation project is eligible for “Relocation Assistance.” All activities would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (refer to Section 2.1.3.2 and see Appendix B also).

Utilities/Emergency Services

Before construction, public utilities affected by the project would be relocated. During construction, one to two lanes of traffic would remain open. Emergency vehicles would be given priority (refer to Section 2.1.4).

Traffic and Transportation/Pedestrian and Bicycle Facilities

During construction, a traffic management plan would be implemented to help reduce traffic delays, congestion, and accidents. Standard Caltrans construction practices include providing information on roadway conditions, portable changeable message signs, lane and road closures, advance warning signs, alternate routes, reverse and alternate traffic control, and a traffic contingency plan for unforeseen circumstances and emergencies.

Traffic on State Route 46 would be detoured onto “F,” “J” and 6th streets during construction at the Burlington Northern/Santa Fe Railroad tracks.

Improvements would be constructed in conformance with the requirements of the Americans With Disabilities Act (refer to Section 2.1.5).

Visual/Aesthetics

In Segment 2, breaking up the mass of paved area with landscaping or stamped concrete medians would increase the visual quality of the highway.

In Segment 3, landscaping the slopes of the underpass would soften the impact of such a large structure and would screen the adjacent industrial properties from view from the highway. Landscaping would also aid in erosion control. Pedestrian facilities within the underpass coupled with aesthetic amenities such as enhanced paving and landscaping would also improve the visual quality of Segment 3 (refer to Section 2.1.6).

Water Quality and Storm Water Runoff

Management measures and best management practices would need to be addressed during the planning, design, construction, operation and maintenance stages.

A Storm Water Pollution Prevention Plan would be implemented during construction to help identify the sources of sediment and other pollutants that affect the quality of storm water discharges. The plan would also describe and ensure the implementation of best management practices to reduce or eliminate sediment and other pollutants in storm water as well as non-storm water discharges. A Storm Water Management Plan would be implemented after construction was completed (refer to Section 2.2.1).

Paleontology

Monitoring and mitigation measures such as preparation of a detailed mitigation plan, construction monitoring, and recovery of fossils remains in a timely manner are recommended because the possibility exists that fossils would be encountered during the excavation phase of road construction (refer to Section 2.2.2).

Threatened and Endangered Species

The Biological Assessment and the Natural Environment Study propose the following mitigation for the San Joaquin kit fox: (1) A Caltrans biologist or other qualified biologist would conduct an employee education program before groundbreaking activities; (2) Construction contract special provisions for the San Joaquin kit fox would be followed by all persons on the project site; (3) Construction activities would be conducted during daytime hours to avoid potential disruption of the nighttime activities of the San Joaquin kit fox; and (4) Caltrans proposes to mitigate for the permanent loss of 11.03 hectares (26.31 acres) of San Joaquin kit fox foraging habitat at a 1.1 to 1 ratio and the temporary loss of 3 hectares (7 acres) at a 0.5 to 1 ratio within an approved U.S. Fish and Wildlife Service mitigation bank. The total acreage to be acquired would be 13.63 hectares (32.44 acres) (refer to Section 2.3.3).

In addition, the following special provisions would be implemented before and/or during construction of this project and are available for review at: California Department of Transportation, 1352 W. Olive Avenue, Fresno, CA:

- Caltrans Standard Specifications Section 7-1.0F “Air Pollution Control” and Section 10 “Dust Control” pertaining to dust control and dust palliative requirements.
- *Archaeology Special Provisions* in regards to the discovery of artifacts and/or human remains during construction.
- *General Migratory Bird Treaty Act Special Provisions* in regards to the protection of migratory birds, their occupied nests, and their eggs from disturbance or destruction.
- *San Joaquin Kit Fox Protection Special Provisions* in regards to the avoidance of a “take” as defined by law.



Appendix H Cross-Sections

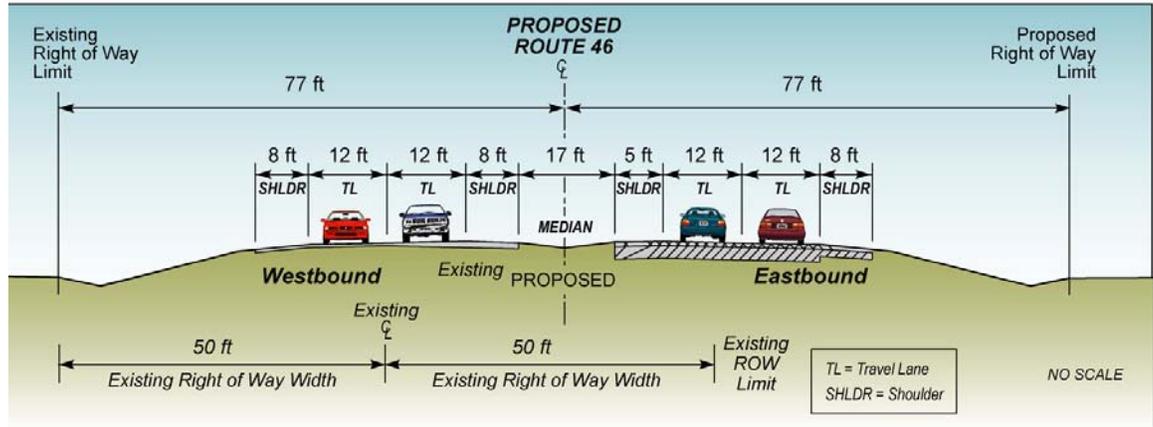


Figure H-1. Segment 1: Alternative 1

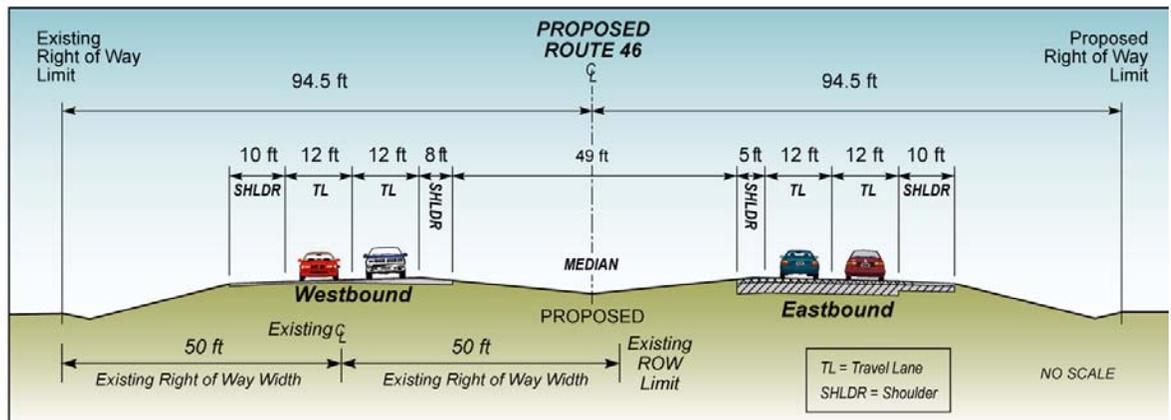


Figure H-2. Segment 1: Alternative 2

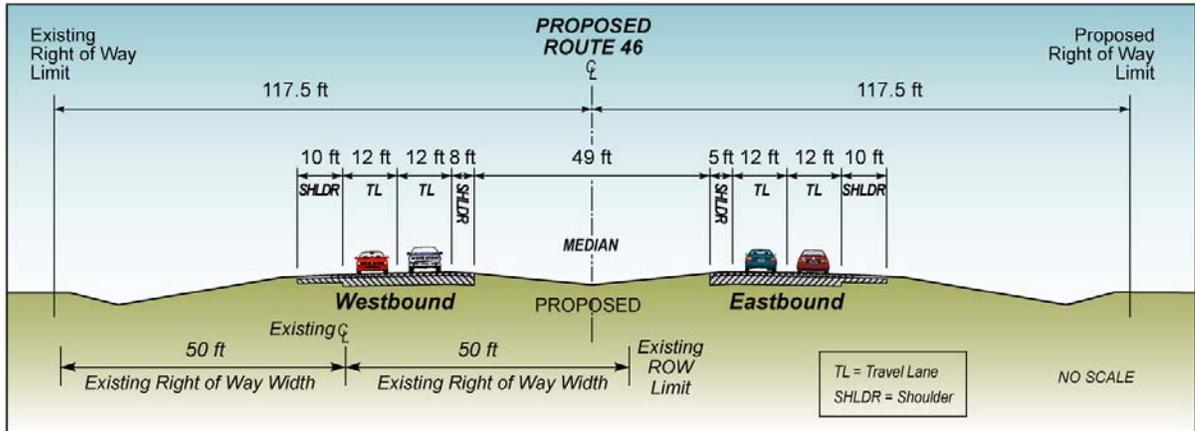


Figure H-3. Segment 1: Alternative 3

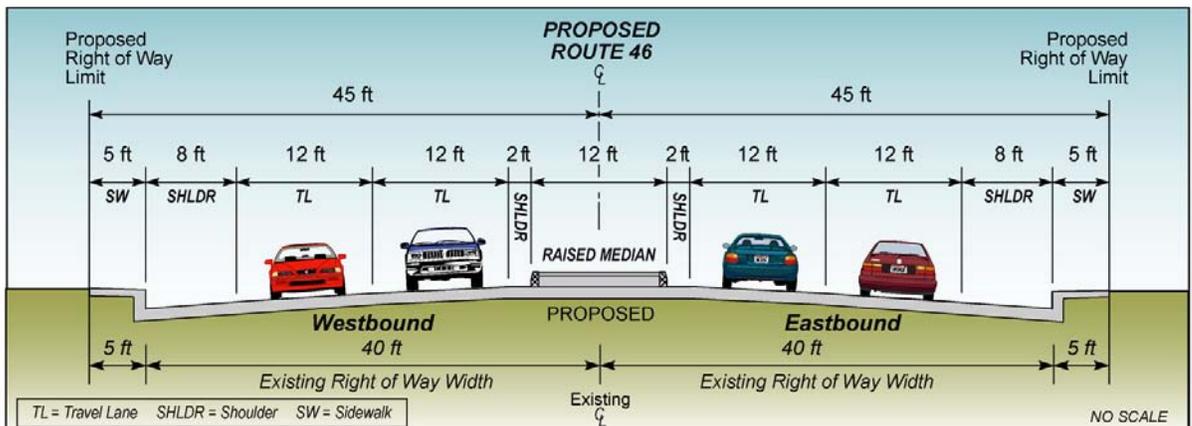


Figure H-4. Segment 2: Alternative 6b

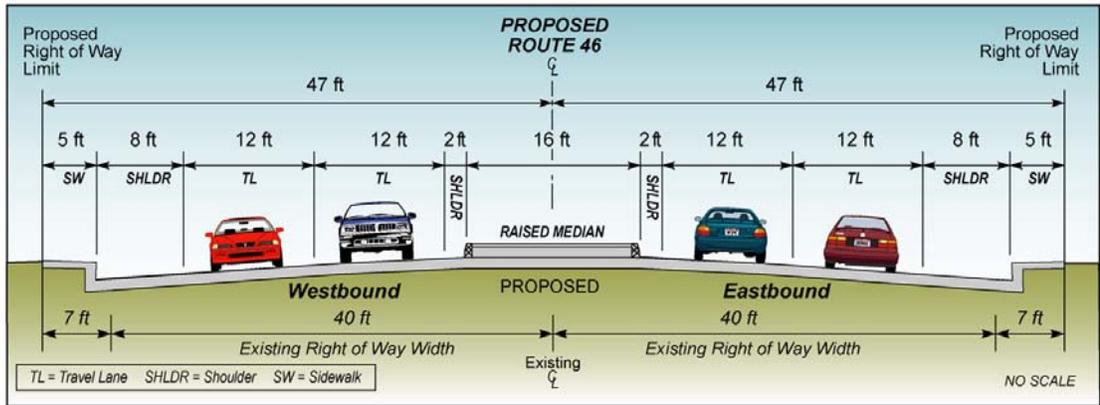


Figure H-5. Segment 2: Alternative 7b

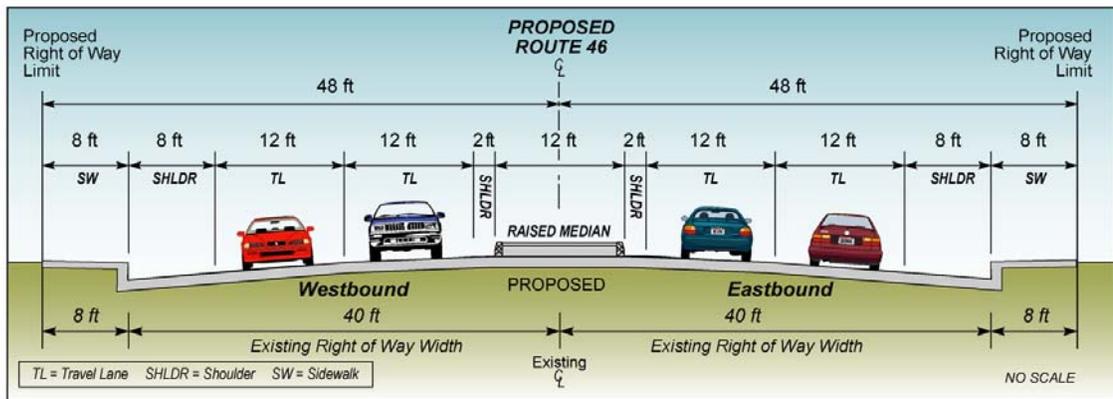


Figure H-6. Segment 2: Alternative 8b

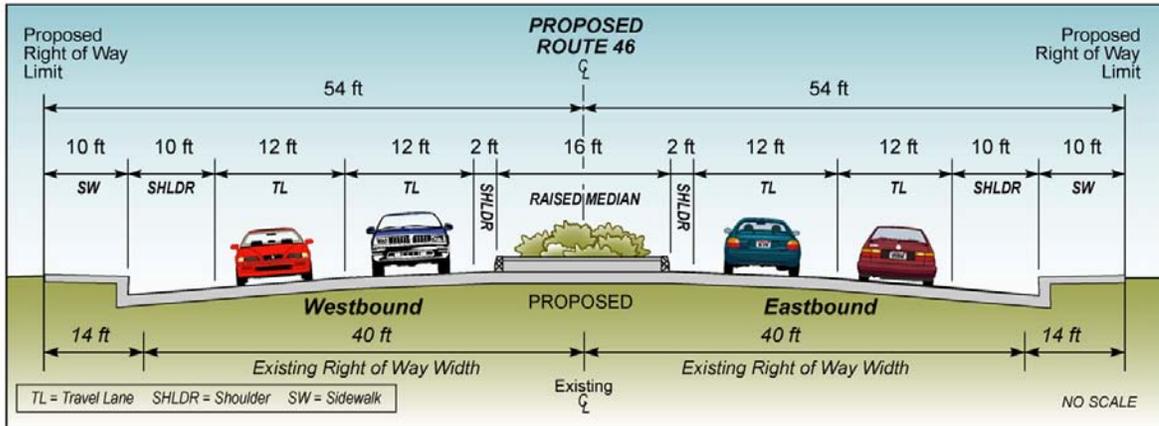


Figure H-7. Segment 2: Alternative 9b

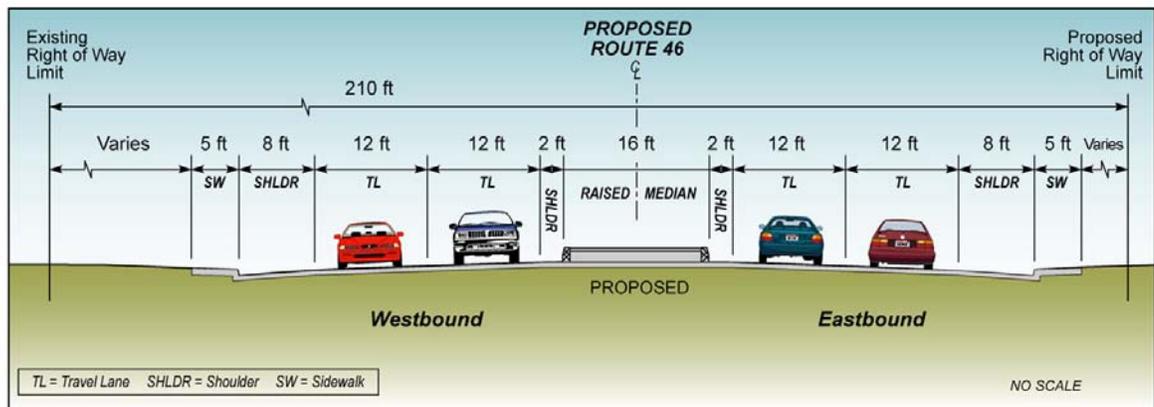


Figure H-8. Segment 3: Alternative 11a

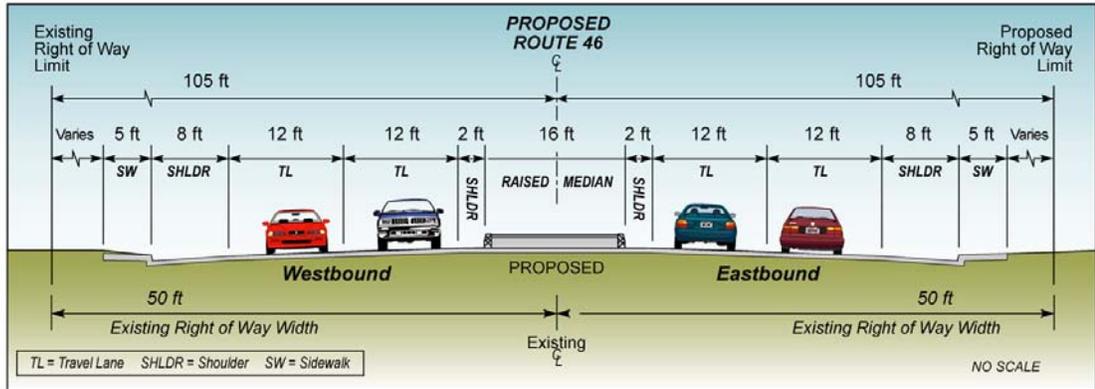


Figure H-9. Segment 3: Alternative 11b

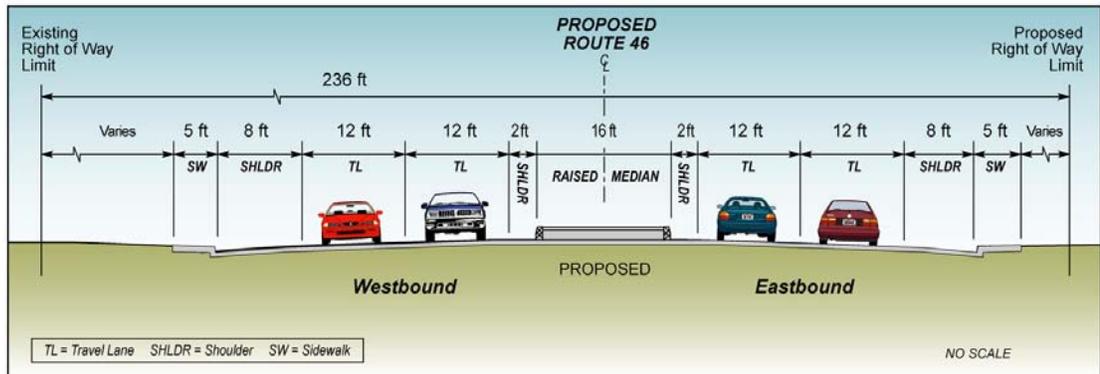
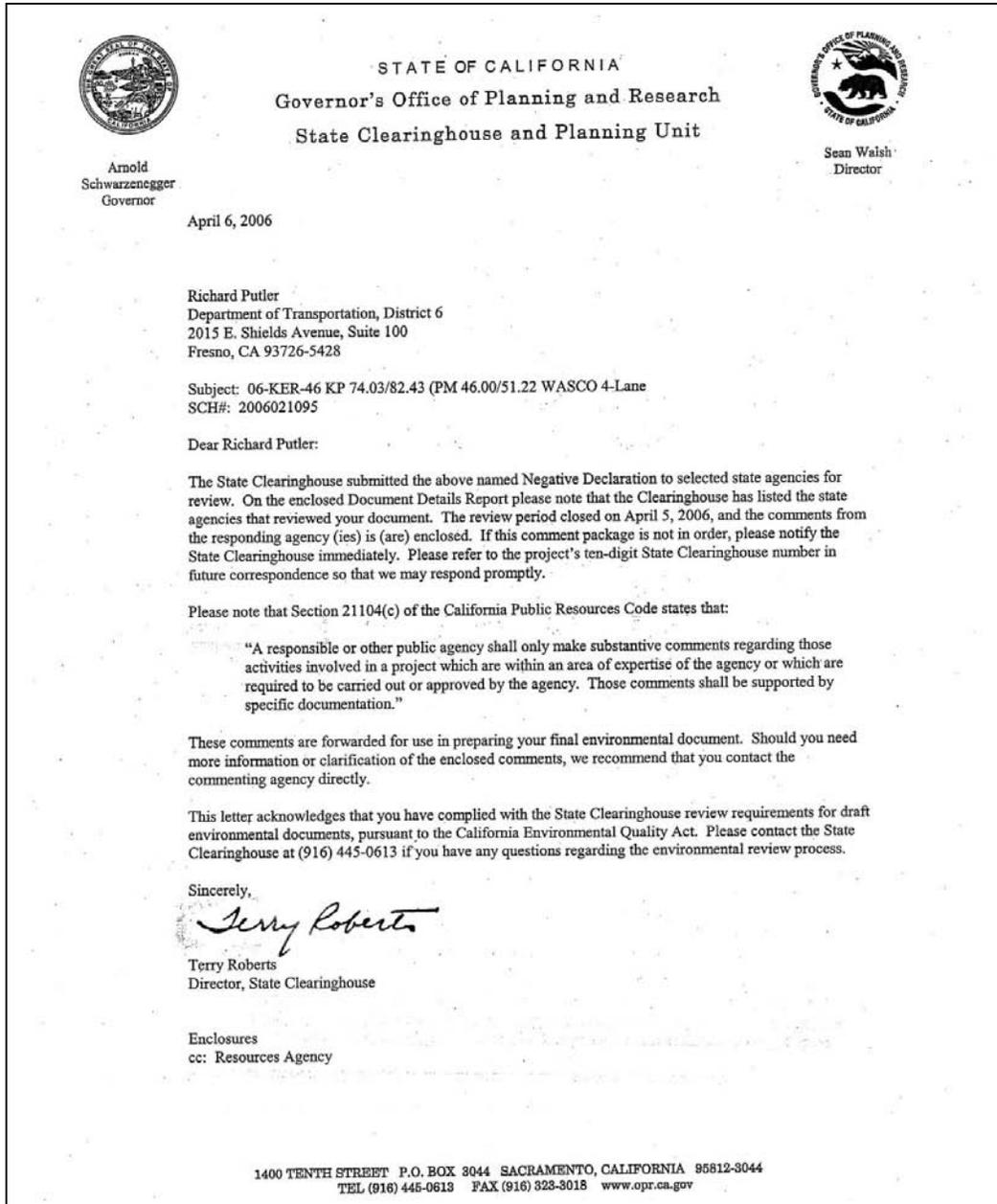


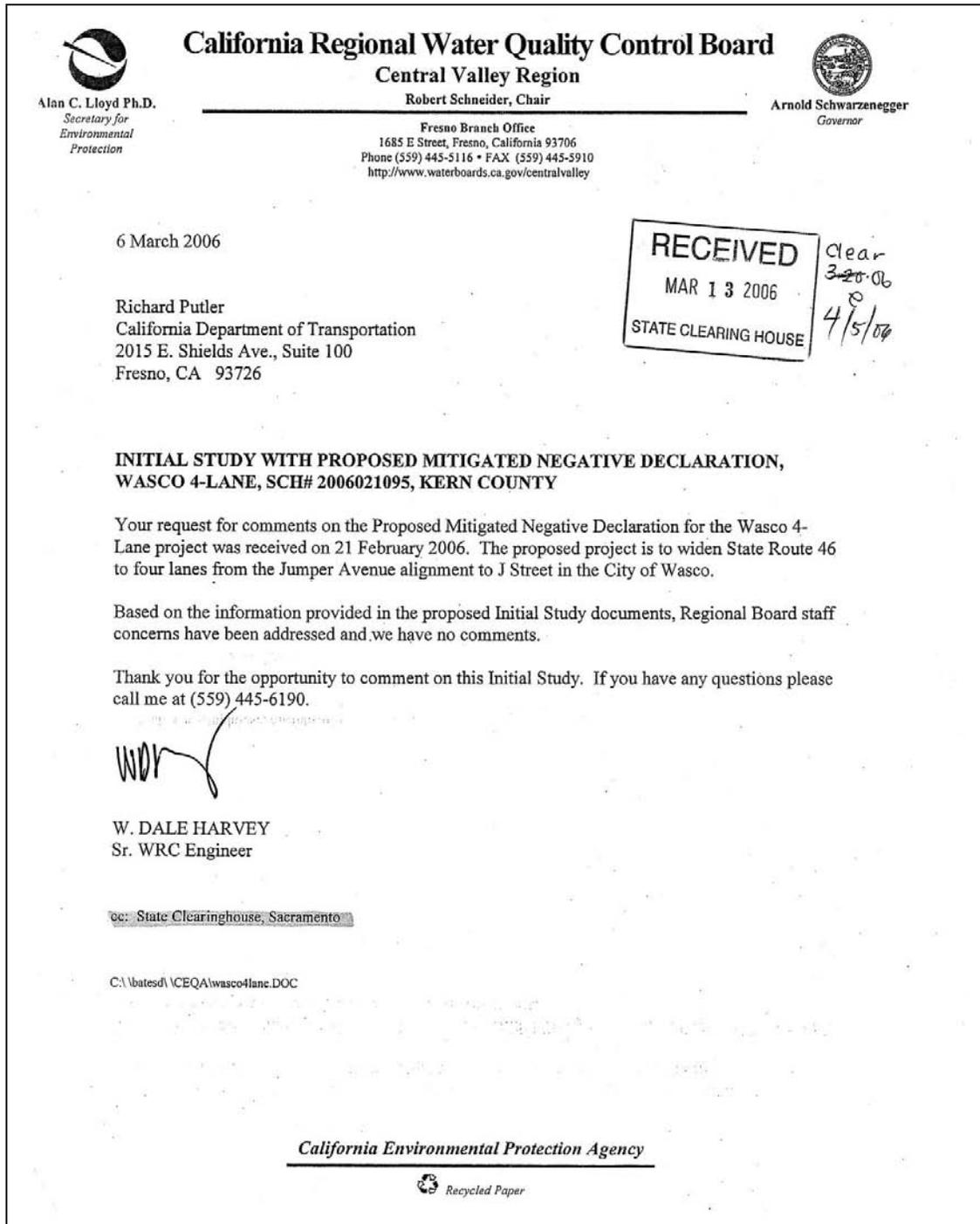
Figure H-10. Segment 3: Alternative 12a



Appendix I Comments and Responses



Response: No response is required. The State Clearinghouse letter acknowledges that Caltrans has complied with review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.



Response: Comment noted.



San Joaquin Valley
Air Pollution Control District

March 27, 2006

District Reference No.: C20060425

Richard Putler
California Department of Transportation
2015 East Shields Avenue, Suite 100
Fresno, CA 93726

Re: Initial Study/Proposed Mitigated Negative Declaration/
Environmental Assessment-Wasco 4-Lane
District 6-KER-46-KP 74.03/82.43 (PM 46.00/51.22)
06-418800

Dear Mr. Putler:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above and offers the following comments:

The entire San Joaquin Valley Air Basin is designated non-attainment for ozone and particulate matter (PM10 and PM2.5). This project would contribute to the overall decline in air quality due to construction emissions. In the short term, the project will increase traffic and generate pollutants from mobile sources. In the long term, the District concurs that the project, as proposed, would ease traffic congestion. The District also concurs with the air quality analysis and believes that the impacts on air quality would be less than significant. A concerted effort should be made to reduce project-related emissions as outlined below:

Based on the information provided, the proposed project will be subject to the following District rules. The following items are rules that have been adopted by the District to reduce emissions throughout the San Joaquin Valley, and are required. This project may be subject to additional District Rules not enumerated below. To identify additional rules or regulations that apply to this project, or for further information, the applicant is strongly encouraged to contact the District's Small Business Assistance Office at (209) 557-6446. Current District rules can be found at <http://www.valleyair.org/rules/1ruleslist.htm>.

- **Regulation VIII** (Fugitive PM10 Prohibitions) As mentioned in the Draft Environmental Impact Report (DEIR), this project will be subject to the provisions of the District's Regulation VIII. Rules 8011-8081 are designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, landfill operations, etc. The District's compliance assistance bulletin for construction sites can be found at <http://www.valleyair.org/busind/comply/PM10/Reg%20VIII%20CAB.pdf>.

As specified in Section 6.3.1 of Rule 8021, when a project is of this size, a Dust Control Plan (DCP) must be submitted to the District. A template of the District's Dust Control Plan is available online at <http://www.valleyair.org/busind/comply/PM10/forms/DCP-Form%20-%2010-14-2004.pdf>. Construction activities shall not commence until the District has approved the DCP. The applicant must provide written notification, via fax or mail, to the District within 10 days prior to the commencement of earthmoving activities.

Northern Region Office
4800 Enterprise Way
Modesto, CA 95356-8718
(209) 557-6400 • FAX (209) 557-6475

Central Region Office
1990 East Gettysburg Avenue
Fresno, CA 93726-0244
(559) 230-6000 • FAX (559) 230-6061
www.valleyair.org

Southern Region Office
2700 M Street, Suite 275
Bakersfield, CA 93301-2373
(661) 326-6900 • FAX (661) 326-6985

Mr. Richard Putler
Initial Study/Proposed Mitigated Negative Declaration
Wasco 4-Lane

March 27, 2006
Page 2

- **Rule 3135** (Dust Control Plan Fee) This rule requires the applicant to submit a fee in addition to a Dust Control Plan. The purpose of this fee is to recover the District's cost for reviewing these plans and conducting compliance inspections. More information on the fee is available at <http://www.valleyair.org/rules/currnrules/Rule%203135%201005.pdf>.
- **Rule 4102** (Nuisance) applies to any source operation that emits or may emit air contaminants or other materials. In the event that the project or construction of the project creates a public nuisance, it could be in violation and be subject to District enforcement action.
- **Rule 4641** (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations) If asphalt paving will be used, then paving operations of this project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.
- **Rule 9510** (Indirect Source Review) This rule was adopted to reduce the impacts of growth in emissions from all new development in the San Joaquin Valley. Rule 9510 requires applicants subject to the rule to provide information that enables the District to quantify construction, area and operational PM10 and NOx emissions, and potentially mitigate a portion of those emissions. An application must be filed with the District no later than when the final discretionary application for the development project is filed. For more information and instruction, please contact the District's ISR staff by phone at (559) 230-5800 or by email at ISR@valleyair.org.
- Construction activity mitigation measures include:
 - Limit area subject to excavation, grading, and other construction activity at any one time
 - Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use
 - Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set)
 - Require that all diesel engines be shut off when not in use to reduce emissions from idling.
 - Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways, and "Spare the Air Days" declared by the District.
 - Implement activity management (e.g. rescheduling activities to reduce short-term impacts)
 - During the smog season (May through October), lengthen the construction period to minimize the number of vehicles and equipment operating at the same time.
 - Off road trucks should be equipped with on-road engines when possible.
 - Minimize obstruction of traffic on adjacent roadways.
- Construction equipment may be powered by diesel engines fueled by alternative diesel fuel blends or Ultra Low Sulfur Diesel (ULSD). The California Air Resources Board (CARB) has verified specific alternative diesel fuel blends for NOx and PM emission reduction. Only fuels that have been certified by CARB should be used. Information on biodiesel can be found on CARB's website at <http://www.arb.ca.gov/fuels/diesel/alt/diesel/alt/diesel.htm> and the EPA's website at <http://www.epa.gov/oms/models/biodsl.htm>. The applicant should also use CARB certified alternative fueled engines in construction equipment where practicable. Alternative fueled equipment may be powered by Compressed Natural Gas (CNG), Liquid Propane Gas (LPG), electric motors, or other CARB certified off-road technologies. To find engines certified by the CARB, see their certification website <http://www.arb.ca.gov/msprog/offroad/cert/cert.php>. For more information on any of the technologies listed above, please contact Mr. Chris Acree, Senior Air Quality Specialist, at (559) 230-5829.
- Construction equipment may be used that meets the current off-road engine emission standard (as certified by the CARB), or be re-powered with an engine that meets this standard. Tier I, Tier II and Tier III engines have significantly less NOx and PM emissions compared to uncontrolled engines. To find engines certified by the CARB, see <http://www.arb.ca.gov/msprog/offroad/cert/cert.php>. This site lists engines by type, then manufacturer. The "Executive Order" shows what Tier the engine is

Mr. Richard Putler
Initial Study/Proposed Mitigated Negative Declaration
Wasco 4-Lane

March 27, 2006
Page 3

certified as. Rule 9510 requires construction exhaust emissions to be reduced by 20 percent for NOx and 45 percent for PM10 when compared to the statewide fleet average or to pay an in lieu mitigation fee. For more information on heavy-duty engines, please contact Mr. Thomas Astone, Air Quality Specialist, at (559) 230-5800.

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call me at (559) 230-5800 or Mr. Dave Mitchell, Planning Manager, at (559) 230-5807 and provide the reference number at the top of this letter.

Sincerely,



Elena Nuño
Air Quality Specialist
Central Region

Response: Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are required for 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 rules, ordinances and regulations of the San Joaquin Valley Air Pollution Control District. A Dust Control Plan is required for this project and would be submitted prior to construction. Caltrans would comply with all applicable laws and regulations at the time the project is constructed.

STATE OF CALIFORNIA — DEPARTMENT OF CORRECTIONS AND REHABILITATION

ARNOLD SCHWARZENEGGER, GOVERNOR

**OFFICE OF FACILITIES MANAGEMENT
ENVIRONMENTAL COORDINATION**

1515 S Street, 95814
P.O. Box 942883
Sacramento, CA 94283-0001



March 22, 2006

Mr. Juergen Vespermann, Branch Chief
Southern Sierra Environmental Analysis Branch
California Department of Transportation
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726-5308

Dear Mr. Vespermann:

**COMMENTS ON THE INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE
DECLARATION/ENVIRONMENTAL ASSESSMENT FOR THE WASCO 4-LANE
PROJECT**

Thank you for providing the California Department of Corrections and Rehabilitation (CDCR) with the opportunity to comment on the environmental document for the proposed Wasco 4-Lane project. The Department supports the proposed project to increase State Route 46 highway capacity to meet existing and future traffic volumes and to improve the safety and operation of the highway.

The CDCR Staff has reviewed the draft environmental document and respectfully offers the following comments to assist the California Department of Transportation with selecting a route alternative that avoids impacts to Wasco State Prison (WSP). The WSP is located at 701 Scofield Avenue and access to the prison is from State Route 46.

The proposed project would widen State Route (SR) 46 between Jumper Avenue and "J" Street in the city of Wasco in Kern County, California. The alternative description for Segment 1 considers three alternative alignments. Alternative 1 would widen SR 46 to the south by 54 to 74 feet, Alternative 2 would widen SR 46 to the south by 89 to 109 feet and Alternative 3 would widen the highway to the south by 135 feet.

Segment 1, Alternatives 2 and 3 would require the acquisition of an electrical substation that supplies power for WSP. Approval of either Alternative would have potentially significant impacts to WSP. Relocating the electrical substation 487-080-09 would be potentially disruptive to current prison operations and would require extensive coordination with the institution. Approval of the Alternative 1 for Segment 1 would avoid impacts to the prison. Therefore, CDCR concurs with the Preferred Alternative for Segment 1 which is Alternative 1 because it avoids relocating the electrical substation. If the Preferred alternative changes or if the

Mr. Juergen Vespermann, Branch Chief
Page 2

scope of this project changes, please contact me or Mr. John Lara, Correctional Plant Manager at (661) 758-8400 Extension 7329 to address and resolve project-related issues that would impact the prison. If you have any questions or if you need additional information, please call me at (916) 323-0731.

Sincerely,


CHER DANIELS
Supervising Environmental Planner
Environmental Coordination
Office of Facilities Management

cc: John Dovey, CDCR
John Lara, WSP
Pat Vazquez, WSP

Response: Following the public comment period, Alternative 1 was selected as the Preferred Alternative for Segment 1 between Magnolia Avenue and Scofield Avenue, transitioning to a rural expressway west of Scofield Avenue. The Preferred Alternative would avoid displacement of the electrical substation at the Wasco State Prison. To minimize disruption to the operation of the Wasco State Prison, Caltrans would coordinate with the Department of Corrections during design and construction of the project.

Public Cemetery District No. 1 of Kern County

P. O. Box 354
Shafter, California 93263
(661) 746-3921
FAX (661) 746-0310

BOARD OF TRUSTEES

MELVIN McLAUGHLIN, Wasco, California
WILLIAM M. PROUT, Shafter, California
DAVID ANDERSON, Shafter, California

SHAFTER MEMORIAL PARK
WASCO MEMORIAL PARK
TIMOTHY W. UNRUH, Manager

March 17, 2006

Juergen Vespermann, Branch Chief
Southern Sierra Environmental Analysis Branch
California Department of Transportation
2015 East Shields Ave., Suite 100
Fresno, CA 93726

RE: DEIR to widen State Route 46 in Wasco

Dear Mr. Vespermann:

The Public Cemetery District No. 1 owns and maintains the Wasco Memorial Park on State Route 46 and Leonard Avenue. We have concerns with the widening of the Wasco 4-Lane Project directly south of our location.

In an effort to safely bring funeral processions off of Highway 46 onto Leonard Avenue, our cemetery presently has a turn lane off of State Route 46 onto Leonard Ave. Our concern is that the widening alignment of the proposed improvements will eliminate the present turn lane, remove the existing trees and potentially impact the safety of the funeral processions traffic flow from the Highway.

Another item of concern is the increase in traffic noise that this road widening will incur. In a 1985 memo from a meeting with Caltrans, this issue was discussed and it was stated that noise level readings indicate noise mitigation measures may be necessary to meet federal standards. In the memo the issue of noise was discussed as follows:

“The issue of noise problems during funeral services was discussed. Caltrans has taken noise level readings at the entrance and they are at the threshold level for noise mitigation measures per Federal noise guidelines. The height of the wall needed to reduce the noise level to acceptable level would be over 15 feet high ... If the sound wall is constructed, it will reduce the noise level ... This problem could be corrected at a later date under the statewide wall retrofit program ... when the existing 2-lane highway is upgraded to a 4-lane facility which will require a new environmental study and documentation.”

Caltrans-W 2006

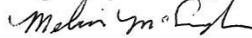
CALIFORNIA ASSOCIATION OF PUBLIC CEMETERIES
CALIFORNIA SPECIAL DISTRICTS ASSOCIATION

1

2

This memo indicates that the noise is at a level that should be mitigated and the time to do so is at the review of the draft EIR which is in progress. We have burials approximately 35 feet from the traffic configuration and this impacts the ability of the cemetery to provide a proper burial. It would be in the best interests of the community and for Caltrans to provide a noise barrier in the form of a block wall to mitigate the increased traffic noise that this road widening will bring. This wall would need to be across the south frontage of the cemetery.

Respectfully submitted,



Melvin McLaughlin
President of the Board of Trustees
Kern County Cemetery District

Response to comment 1: Caltrans would retain the existing right-turn lane from westbound State Route 46 to northbound Leonard Avenue in the interest of public safety.

Response to comment 2: Caltrans conducted a Supplemental Noise Study at the Wasco Cemetery. Traffic noise measurements were taken on May 3, 2006, at the intersection of the southern crossroad and the former south entrance to the cemetery from State Route 46. The Federal Highway Administration Traffic Noise Model - Version 2.5 was used to simulate current and future peak-hour traffic noise levels based on the traffic data noted in Chapter 1 (page 2) of this document.

Noise projections were prepared for the front quarter (about halfway between the southern and middle crossroads) and the midpoint of the cemetery (in the middle crossroad, near the center of the cemetery). The projections for the front quarter approximate the average noise level experienced by someone in the southern half of the cemetery. The projections for the midpoint approximate the average noise level experienced by someone anywhere in the cemetery.

The results of the supplemental noise study indicated that the predicted noise levels for peak-hour traffic for the current, future build (Preferred Alternative: Alternative 1) and no-build scenarios would be below the noise abatement criteria threshold.

In accordance with the Caltrans Traffic Noise Analysis Protocol, noise abatement is considered only where noise impacts are predicted, frequent human use occurs and lowered noise level would be of benefit. Primary consideration is given to exterior areas where the noise abatement criteria are exceeded. As shown in Table 2-10 in Chapter 2 of this document, noise abatement criteria is made up of five activity categories denoted from “A” to “E.” A cemetery is categorized under activity “B,” which requires a noise level of 67 decibels before noise abatement is considered.

The existing noise levels at the cemetery are below the noise abatement threshold. In addition, future noise levels at the cemetery with the project (65.7 decibels) would not approach (come within 1 decibel) or exceed the noise abatement criteria (67 decibels) for this type of use as defined by the Caltrans Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (October 1998). Noise abatement is not warranted because noise levels are below the noise abatement criteria.

The highway is being widened to four lanes. Alternative 1 (the Preferred Alternative for this segment) would have a right-of-way of 44 meters (144 feet); Alternative 2 would have a right-of-way of 58 meters (189 feet); and Alternative 3 would have a right-of-way of 72 meters (235 feet). This would move approximately half of the traffic, as well as the centerline of noise, farther away from the cemetery.



Comment Card

NAME: NADHEM Mohamed GAZALI
ADDRESS: 1032 Hwy 46 CITY: WASCO ZIP: 93280
REPRESENTING: _____

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, District 6
Department of Transportation
Attention: Richard Putler
Environmental Planner
2015 East Shields Avenue, Suite 100
Fresno, CA 93726-5428

I would like the following comments filed in the record (please print):

We have had this business for 23 years. If you build the road then are you going to pay for that? We don't want to be that close to the road. We want have room for walk up customers and this will take revenue from our business. If you build the road are you going to pay to move our business further back on our lot?

Please respond by April 5, 2006

How Did You Hear About This Meeting? newspaper newsletter somebody told me other: _____



Response: Widening State Route 46 would likely affect the property where Frosty King is located. If the proposed right-of-way line bisects the building, the appraisal would likely propose full acquisition of the property. If the proposed right-of-way line were close to the building and the walk-up window, the appraiser would measure

damages, or loss in value, to the remaining portion of the property. If the appraiser determines the remainder of the property has suffered a loss in value that can be offset by relocating the walk-up window to the east or west side of the building, then that is what the appraiser would propose. Compensation would be what is most economical, and in either case, compensation would be determined at fair market value. As a simplified example, if damages are estimated at \$100, but the damage can be “cured” by moving the walk-up window for \$80, then the appraisal would propose the curative work. However, if it would cost \$120 to “cure” the damages, the appraisal would state that it is more economical to compensate the owner by paying the \$100 in damages.

If the business were displaced because the proposed right-of-way line bisects the building, Caltrans would provide relocation assistance, whether the business relocates to another property or to the remainder of the existing property. Relocation assistance for an existing business is limited to moving expenses and reestablishment expenses, which are explained in detail in Section 10.05.00.00 of the Caltrans Right of Way Manual as well as in Title 49 of the Code of Federal Regulations Section 24. The business owner also has the right to file a claim for loss of business goodwill as outlined in Section 7.17.00.00 of the Caltrans Right of Way Manual as well as in the California Code of Civil Procedure, Title 7, Eminent Domain Law, Chapter 9, Article 6, Sections 1263.510, 520 and 530.



Comment Card

NAME: HOWARD LEE

ADDRESS: P.O. BOX 656 CITY: WASCO, CA ZIP: 93280

REPRESENTING: NATIONAL MARKET

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or

Mail to: CALTRANS, District 6
 Department of Transportation
 Attention: Richard Putler
 Environmental Planner
 2015 East Shields Avenue, Suite 100
 Fresno, CA 93726-5428

I would like the following comments filed in the record (please print):

1. WIDEN STATE ROUTE 46 TO THE NORTH, IN THE COMMERCIAL DISTRICT, WOULD AFFECT LESS HOMEOWNERS AND BUSINESSES, EVEN THOUGH THEY WOULD HAVE TO PUT UP WITH MONTHS OF CONSTRUCTION.
2. ALTERNATIVE 6B - WIDEN SYMMETRICALLY A TOTAL OF 10 FEET. ANYTHING MORE WOULD GREATLY AFFECT OUR FRONT PARKING!
3. ALTERNATIVE 13 - NO BUILD - THE HIGHWAY WOULD STAY IN ITS EXISTING CONDITION.

Please respond by April 5, 2006

How Did You Hear About This Meeting? newspaper newsletter somebody told me other: _____




Response to comment 1: Even though there are fewer parcels on the north side of State Route 46, more full acquisitions would be required to widen the highway to the north rather than symmetrically.

Caltrans owns dedicated easements for highway improvements across 22 of the parcels in Segment 2: there are 15 parcels on the south side of State Route 46 and

only seven on the north side. The higher cost of right-of-way would make it more expensive to construct State Route 46 to the north.

State Route 46 is being constructed symmetrically in the newer commercial areas of Wasco west of Palm Avenue. The Preferred Alternative proposes to match the symmetrical pattern. In the area between Central Avenue and “F” Street, Caltrans owns 4.6-meter (15-foot) easements across 22 (25%) of the 89 existing parcels on both sides of State Route 46, making it more cost effective to construct the highway symmetrically.

Shifting the highway to allow for a northside widening through a short portion of Wasco would produce a “kink” in the highway. In addition, due to the length and size of the curves needed to shift the highway to the north, impacts to property on the south side of State Route 46 would not be greatly lessened.

Response to comment 2: Alternative 6b meets the purpose and need of the project, but does not allow for as many amenities to provide pedestrian safety as the Preferred Alternative. Alternative 6b provides a 3.6-meter (12-foot) median and 1.5-meter (5-foot) sidewalks. The Preferred Alternative provides a 4.8-meter (16-foot) median, including a 1.2-meter (4-foot) pedestrian refuge, 3-meter (10-foot) shoulders and 3-meter (10-foot) sidewalks. With three schools within the vicinity of this portion of State Route 46 and the high volume of trucks, the Project Development Team decided that the pedestrian refuge and the wide shoulders and sidewalks were necessary to ensure the safety of the many pedestrians and bicyclists that would use this roadway.

Response to comment 3: Under the No-Build Alternative, State Route 46 would remain in its current condition. The highway would continue to consist of two 3.6-meter (12-foot) lanes with 2.4-meter (8-foot) shoulders throughout most of the project area. This alternative would do nothing to relieve congestion, improve safety or rehabilitate the pavement within this segment of State Route 46. Without the proposed improvements, as traffic increases over time, accident rates would be expected to rise and the Level of Service of the highway would be expected to worsen. Maintenance costs would also be expected to increase over time. The No-Build Alternative would not allow the upgrades necessary to improve safety, such as construction of a median and left-turn lanes to control conflicting traffic movements.



Comment Card

NAME: Mc Guire Realty
ADDRESS: 1069.7th St CITY: Wasco ZIP: 93280
REPRESENTING: Beverly Copeland Jones
APN: 030 020 04 01 6 541 Hwy. 46, Wasco

Do you wish to be added to the project mailing list? YES NO

Please drop comments in the Comment Box or
Mail to: CALTRANS, District 6
Department of Transportation
Attention: Richard Putler
Environmental Planner
2015 East Shields Avenue, Suite 100
Fresno, CA 93726-5428

I would like the following comments filed in the record (please print):

Please respond by April 5, 2006

How Did You Hear About This Meeting? newspaper newsletter somebody told me other: _____



Response: Name added to the project mailing list.

Comments Received by Telephone

Name: Bob Hill, President, Franzen-Hill Corporation

Date: February 23, 2006

Mr. Hill said that Franzen-Hill is cleaning up the abandoned gas station at State Route 46 and Griffith Avenue. He said that vapor extraction was currently taking place and that cleanup of the property should be completed by the end of March. He indicated that the site was going to be reopened as a gas station and that his concern was that the tanks for the new station be placed outside of the proposed right-of-way for the widening of State Route 46. Mr. Hill also wanted to know if a new encroachment permit would be required for the property.

Response: Caltrans Associate Environmental Planner Richard Putler told Mr. Hill to consider attending the public hearing so that Hill could view the aerial photos and see the relationship of the property he was working on to the proposed right-of-way for the widening of State Route 46. Putler also stated that Caltrans staff at the hearing would be able to discuss whether a new encroachment permit would be required for the property.

Name: Tim Unruh, District Manager, Kern County Cemetery District

Date: March 6, 2006

The Kern County Cemetery District operates the cemetery at the northwest corner of Leonard Avenue and State Route 46. Mr. Unruh had the following questions concerning the project:

1. What was the status of the Wasco 4-Lane project?

Response to comment 1: Caltrans Associate Environmental Planner Richard Putler said that the project was currently in the environmental document and preliminary design phase.

2. Would Caltrans need to acquire property from the cemetery as a part of the Wasco 4-Lane project?

Response to comment 2: Putler said that all of the alternatives under consideration for this segment of the project would construct improvements to the south, away from the cemetery, and that none of the District's property would be needed.

3. Was noise mitigation being proposed as a part of the project to deal with noise from increased traffic on State Route 46?

Response to comment 3: Putler said that noise mitigation in the area was considered, but was determined to be unfeasible. Putler also noted that noise should not be an issue in the area because the project would move the centerline of noise away from the cemetery.

Name: Howard Lee, Owner National Market

Date: March 7, 2006

Mr. Lee owns the property at the southwest corner of Broadway and State Route 46. There is a single building on the parcel that houses the National Market and two additional spaces that are leased to other businesses. Mr. Lee said that he is opposed to any plan to widen State Route 46 to the south. He said that moving State Route 46 to the south would put the highway at the door of his business, cause him to lose parking, and put him out of business.

Mr. Lee said that the highway should be widened to the north. He said that if the highway were widened to the south, it would disturb many homes and businesses. He said that if the highway were widened to the north, it would disturb only five or six homes or businesses, most of which would be disturbed if the highway were only partially widened to the north.

Response: Caltrans Associate Environmental Planner Richard Putler told Mr. Lee that he should attend the public hearing, talk with Caltrans staff about his concerns, and give his testimony to the court reporter.

Name: Ted Visser, property owner

Date: March 8, 2006

Mr. Visser owns property on the south side of State Route 46, immediately west of the Wasco State Prison. He asked how the highway would transition back to the existing alignment without taking some of his property. He was also concerned about access to his property. He asked what types of improvements are planned for State Route 46 in his area.

Response: Caltrans Associate Environmental Planner Richard Putler told Mr. Visser that State Route 46 would transition back into its existing alignment before reaching Visser's property and that none of Visser's property would need to be acquired for the project. Putler also said that a two-lane expressway is planned for the next segment of State Route 46 west of the Wasco State Prison. Putler invited Mr. Visser to attend the public hearing to view the aerial photographs for this segment of the project and talk with Caltrans engineering staff.

Name: Kashmir Billon, Owner, Billon Enterprises

Date: March 15, 2006

Mr. Billon owns property on the north side of State Route 46, immediately east of the Exxon gas station at Palm Avenue. He said that he lived out of the area and would be unable to attend the public hearing for the project. He wanted to know what improvements were being proposed for the project.

Response: Caltrans Associate Environmental Planner Richard Putler told Mr. Billon that besides adding additional lanes to State Route 46, Caltrans was proposing to construct left-turn lanes, sidewalks, curbs, gutters, and medians.

PUBLIC HEARING
STATE ROUTE 46 WIDENING PROJECT
KERN COUNTY

Wasco, California
Thursday, March 23, 2006

REPORTER'S TRANSCRIPT

--oOo--

Reported by: Tanuya E. Corona, CSR No. 12782

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Randall**
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COPY

1 Wasco, California
2 Thursday, March 23, 2006; 4:00 p.m.
3 Wasco Recreational Center
4
5

6 MR. EWING: Tonight's public hearing is now
7 officially open.

8
9 * * * * *

10
11 MR. LARA: My name is John H. Lara, L-a-r-a.
12 Middle name "H" and I'm the Correctional State Manager
13 for Wasco State Prison, located at the corner of
14 Scolfield and Highway 46 and we just came to make a
15 recommendation. And our recommendation was, that they
16 use an alternate plan and not use the plan that they had
17 for relocating our substation because relocating the
18 substation is really bad for our institution.

19 The thing is, if they re-energize our
20 substation, we will have 6,000 inmates that will be
21 impacted, plus 1,500 employees and the cost of
22 electricity will escalate the prison because of our
23 surcharge. See, we charge hooking up directly to the
24 12,000 volt line, so we would be bypassing our
25 substation.

1

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3

1 We found out today that is not the recommended
2 alternate, so they're going with alternate --

2

3 MR. KRUEGER: Mike Krueger, K-r-u-e-g-e-r. I'm
4 an electrician working for John. I work for John.

5 Yes, they're going with an alternate one, 9B in
6 town, which is exactly what we want to see.

7 MR. LARA: Yes. So we're happy with that.

8 MR. KRUEGER: Very happy.

9 MR. LARA: So we didn't have to come in and
10 argue our point. That was good.

11 MR. KRUEGER: No kidding. Thank you, very
12 much.

13
14 * * * *

3

15
16 MR. JOHNSON: William Lee Johnson, L-e-e.

17 I just tell you what I want?

18 COURT REPORTER: Apparently, yes.

19 MR. JOHNSON: I agree with what they're doing
20 and of the proposal. I don't have a problem with it.
21 They need to expedite it is all. That's it.

22
23 * * * *

4

24
25 MR. MARTIN: My name is Dennis Martin. I

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1 currently own property at the southeast corner of
2 Highway 46 and northbound Highway 43 where there is an
3 existing old gas station building that's been unoccupied
4 for many years that we are proposing on building a
5 convenience store and gas station.

6 The property is 200 by 200 foot square, as it
7 exists today and I have applied for Caltrans
8 encroachment permit and in doing so, I have come to or
9 Caltrans has come to a request that I need to dedicate
10 40 foot of right away of my 200 foot parcel at no cost
11 to Caltrans for this upcoming project that we're here to
12 discuss today.

13 I'm in the transition zone that comes in from
14 the east of Wasco and it will be transitioning to the
15 underpass project, whatever they may decide to do there.

16 My concern is, that I'm being required to
17 dedicate 40 foot of right away on a 200 foot frontage
18 that will seriously have deleterious, I guess the word
19 would be, consequences for the economic utility of my
20 property.

21 I'm giving up 20 percent of my property at no
22 cost to me and in doing so, I am also required to
23 provide all the public right away improvements on that
24 property as well. If I was to not build on the property
25 and wait eight years and at that time Caltrans goes

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1 ahead with this project, then Caltrans would be required
2 to buy that parcel from me and I would not be out any
3 money on that.

4 However, being that I want to build a parcel, a
5 project on my property, now I'm required to give up 20
6 percent of the property at no cost. Across the street,
7 the property -- the project will have no effect on the
8 land owner across the street because everything is
9 coming to the south at my point on the project.

10 That is my concern and I feel the way this is
11 being planned for eight years, the effects that I see on
12 this project are that current property owners in order
13 of this project who are contemplating any kind of
14 improvements to their property, would find it less
15 beneficial to themselves to do the project rather than
16 wait, at which time Caltrans would be required to
17 purchase the property rather than having to dedicate
18 property in the event that someone wanted to do an
19 improvement project.

20 So what I'm hoping to see what happens in this
21 eight years, there will be no improvements of any
22 substantial -- of any substantive building on this
23 corner because everyone is going to be required to
24 dedicate Caltrans property at no cost to Caltrans, if
25 they decide to improve their property.

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1 That's my concern and why I'm here today and
2 hopefully there's another way we can approach this.

3 Thank you.

4

5

* * * * *

6

7 MR. EWING: The public hearing is now closed.

8

9 (Whereupon the hearing proceedings ended at
10 7:01 p.m.)

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1 STATE OF CALIFORNIA)
2) ss.
3 COUNTY OF KERN)

4
5 I, Tanuya E. Corona, a Certified Shorthand
6 Reporter for the State of California, hereby certify
7 that I was present and reported in stenotype, all the
8 proceedings in the foregoing-entitled matter; and I
9 further certify that the foregoing is a full, true, and
10 correct statement of such proceedings and a full, true,
11 and correct transcript of my stenotype notes thereof.

12 Dated at Bakersfield, California, on Monday
13 March 27, 2006.

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24 _____
25 Tanuya E. Corona, CSR No. 12782

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Response to comment 1: Following the public comment period, Alternative 1 was selected as the Preferred Alternative for Segment 1 between Magnolia Avenue and Scofield Avenue, transitioning to a rural expressway west of Scofield Avenue. The Preferred Alternative would avoid fully acquiring the electrical substation at the Wasco State Prison. Caltrans would coordinate with the Department of Corrections during design and construction of the project to minimize disrupting the operation of the Wasco State Prison.

Response to comment 2: See Response 1.

Response to comment 3: Comment noted.

Response to comment 4: Caltrans policy and a variety of state and federal regulations require Caltrans to appraise property required for right-of-way for the project at fair market value for its highest and best use. If the highest and best use of a property is greater than its present use, then that is what a Caltrans appraiser would consider. A valuation of property today or in the future would consider the fact that, to reach the highest and best use of a property, a dedication of right-of-way might be needed.

The Caltrans Right of Way Manual and the California Code of Civil Procedure define market value. In particular, the Caltrans Right of Way Manual Section 7.01.09.00, subsection C, states: “Since the required street area would have to be dedicated before the property could achieve its zoning or building permit for highest and best use, the area so required would be of only nominal value.” The fair market value of the area subject to dedication for right-of-way purposes is nominal.

If the proposed project requires more right-of-way than would be required for dedication for the property to reach its highest and best use, then the owner would be compensated for that area based on the value of similar properties in the vicinity.

In addition, the City of Wasco General Plan designates the ultimate width for state highways and city roads. A general plan amendment, zone change or building permit would require dedication of right-of-way to the ultimate width for adjacent roads when development occurs.

There is no time that would be more beneficial to develop the commentor's property than another. The property owner would always be subject to the planning policies and procedures of the City of Wasco and Caltrans. Therefore, whether a property owner goes forward today, dedicates land and develops the property, or waits and develops the property following construction of the highway improvement project, the size of the land that would be dedicated should not change and its fair market value would still be considered nominal.

List of Technical Studies that are Bound Separately

Relocation Studies

- Draft Relocation Impact Report
- Relocation Impact Statement

Air Quality Studies

- Air Quality Report
- Consultation on PM_{2.5} Hot-Spot Conformity Assessment for the Kern 46/Wasco 4-Lane Project, TIP ID# KER990105, as a Project of Air Quality Concern

Noise Studies

- Noise Study Report
- Supplemental Noise Study, State Route 46, Wasco Cemetery, Kern County

Water Quality Report

Natural Environment Study

Location Hydraulic Study

Historical Property Survey Report

- Historic Study Report
- Historic Resource Evaluation Report
- Historic Architectural Survey Report
- Archaeological Survey Report

Hazardous Waste Reports

- Aerially Deposited Lead Survey
- Initial Site Assessment
- Preliminary Site Investigation (Geophysical Survey)
- Preliminary Site Investigation Results

Paleontology Studies

- Initial Paleontology Study
- Assessment Report on Paleontological Sensitivity
- Paleontology Study

Scenic Resource Evaluation/Visual Assessment

Traffic Studies

- Parking Study
- Pedestrian Study
- Operational Analysis
- Safety Analysis
- Updated Accident Data
- Updated Transportation Management Plan and Lane Closure Recommendations