

Capacity and Operational Improvements on State Route 44 in Shasta County



Draft Initial Study

Capacity and Operational Improvements on Route 44 in Shasta County
near Redding from the Airport Road Overcrossing to the Deschutes Road
Undercrossing

02-SHA-44-Post Mile 3.6/7.0
02-368400



April 2005

General Information About This Document

What's in this document?

This document is an Initial Study, which examines the potential environmental impacts of alternatives for this proposed transportation project in Shasta County, California. The document describes why the project is being proposed, alternative solutions, the existing environment that could be affected by the project, potential environmental effects that could result from the project, and proposed mitigation measures.

What should you do?

- Please read this Draft Initial Study.
- We welcome your comments. If you have any concerns regarding the proposed project, please send your written comments to Caltrans. Submit comments via regular mail to Caltrans, Attn: Thomas Balkow, Acting Branch Chief, Office of Environmental Management MS30, 1657 Riverside, Redding, CA 96001; submit comments via email to chris.quiney@dot.ca.gov.
- Submit comments by the deadline: May 14, 2005.

What happens after this?

After comments are received from the public and reviewing agencies, Caltrans may (1) give environmental approval to the proposed project, (2) undertake additional environmental studies, or (3) abandon the project. Final selection of a project alternative will not be made until after the full evaluation of environmental impacts, consideration of public input, and approval of the Final Environmental Document. If the project were given environmental approval and funding were appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Equal Employment Opportunity Officer, 1657 Riverside Drive, CA 96001; (530) 225-3163 Voice, or use the California Relay Service TTY number, (530) 225-2019.

Capacity and operational Improvements on State Route 44 in Shasta County near Redding from the
Airport Road Overcrossing to the Deschutes Road Undercrossing

Initial Study

Submitted Pursuant to: Division 13, Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

3/7/05
Date of Approval


LENA R. ASHLEY
Office Chief
North Region Environmental Services
California Department of Transportation

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans), in cooperation with the Federal Highway Administration and the Shasta County Regional Transportation Planning Agency, is proposing a project to increase capacity and improve the operation and safety of State Route 44 in Shasta County from the Airport Road Overcrossing to the Deschutes Road Undercrossing. The project includes the addition of one traffic lane in each direction on Route 44, construction of an interchange at the Stillwater Road intersection, closure of the Gilbert Drive road connection at Route 44, and reconstruction of the highway drainage system. Approximately 27 acres of new highway right of way will be acquired.

Determination

Caltrans has prepared an Initial Study for the proposed project. On the basis of this study, it has been determined that the project will not result in a significant effect upon the environment for the following reasons:

- Environmental effects related to hazardous waste, mineral resources, geologic and seismic hazards and energy resources will be negligible.
- The project will not result in a significant adverse effect upon historical resources, biological resources, floodplains, agricultural lands, air quality, noise levels, and scenic resources.
- Potential cumulative effects to oak woodlands will be insignificant with mitigation. Oak trees will be planted on-site and at an off-site mitigation area at a ratio of 3:1.
- Potential water quality impacts will be reduced to a level of less than significant with mitigation. Mitigation measures to protect water quality are included in the project plans and the Department's Storm Water Management Plan.
- The project is consistent with planning, land use, transportation, housing, emergency services, utilities, and other social and economic factors relevant to the area.
- The project will be constructed in accordance with the terms and conditions of regulatory permits and Caltrans' contract Standard Specifications and Special Provisions.

BRIAN CRANE
District Director, District 2
California Department of Transportation

Date

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Chapter 1 Proposed Project

1.1 Project Description

The California Department of Transportation (Caltrans), in cooperation with the Federal Highway Administration (FHWA) and the Shasta County Regional Transportation Planning Agency (RTPA), proposes a project to increase the capacity and improve operations and safety on State Route 44 in Shasta County from the Airport Road Overcrossing to the Deschutes Road Undercrossing (Exhibits 1 & 2). Construction is expected to occur between Spring 2008 and Fall 2010 subject to availability of funding and project approval.

1.2 Purpose and Need

The purpose of the project is to increase the capacity of Route 44, improve traffic operations and safety at the Stillwater Road intersection, and maintain connectivity between Stillwater Road and the regional and local transportation systems.

Traffic studies predict increasing traffic volumes and diminishing levels of service [LOS] on this section of highway. LOS is defined in Exhibit 3. Route 44 within the project limits is currently at LOS “E” during the morning and evening peak periods. Projected traffic volumes would generate a LOS “F” by the year 2010 if additional capacity were not provided. It is estimated that implementation of the preferred project alternative would provide LOS “A” or “B” until the year 2030.

Many local residents have expressed frustration and concerns for safety due to long delays experienced while trying to enter Route 44 from Stillwater Road or when turning left from Route 44 onto Stillwater Road. These concerns were expressed during public meetings and through phone calls and letters to Caltrans. The concerns are supported by recent traffic analysis data and accident reports.

The existing at-grade intersections of Stillwater Road and Gilbert Drive with Route 44 currently provide connectivity between Stillwater Road and the regional and local transportation systems.

1.3 Project Background

Route 44 is a major east-west route between the City of Redding and the junction of State Route 36 near Susanville in Lassen County. It is classified as a rural principal arterial serving interregional and interstate travel. Route 44 is a four-lane freeway from Redding to approximately 0.5 mile east of the Airport Road Overcrossing, the city limits, at which point the highway transitions to a two-lane expressway.

Increasing traffic volumes on Route 44 have resulted in delays, frustration, and safety concerns for motorists entering or exiting Route 44 at Stillwater Road. A project was initiated in 2000 to improve operations and safety at the intersection. The improvements included lengthening the eastbound and westbound right turn lanes on Route 44 at Stillwater Road and providing a separation between the turn lanes and traffic lanes to improve sight distance. Subsequent letters regarding conditions on Route 44 and at the Stillwater intersection were received. One letter was received in 2000 containing the signatures of approximately 100 local residents. Another letter, from the Stillwater Advocates for Expediency (SAFE) Driving Coalition, was received in 2002 containing 310 signatures. These letters expressed ongoing operational and safety concerns at the intersection. Among the recommended solutions, both letters indicated support for an overcrossing structure at the Stillwater intersection to alleviate traffic conflicts.

Caltrans held an open house format public meeting on July 31, 2003 to present the various project alternatives being considered and to solicit input from the public. Comment cards were offered for the public to provide input. More than two hundred written comments were turned in. The project alternative that received the most support was the four-lane freeway with an interchange at Stillwater Road.

Another interim project, which would close the north leg of the Stillwater Road intersection, was also discussed at the meeting. This project would alleviate some of the traffic conflicts at the intersection. However, the project would be independent of the currently proposed capacity and operational improvement project and there would be no guarantee as to when or if the currently proposed project would be constructed. A subsequent public meeting was held specifically for the interim project. The interim project has since been eliminated from consideration based upon the results of additional traffic studies and public scoping. The traffic studies and scoping indicates that the closure would force more traffic onto the portion of Old Route 44 between

Stillwater Road and Old Oregon Trail, which currently has an accident rate approximately 2.5 times the statewide average for similar type highways.

1.4 Permits and Coordination

- California Department of Fish and Game, Region 1 - Streambed Alteration Agreement [Section 1602 of the Fish and Game code].
- United States Army Corps of Engineers, Sacramento District – Individual Permit [Section 404 of the Clean Water Act].
- Regional Water Quality Control Board, Central Valley Region – Water Quality Certification [Section 401 of the Clean Water Act].
- NOAA (National Oceanic & Atmospheric Administration) Fisheries - Informal Consultation for State and Federal listed endangered salmonids [Section 7 of the Federal Endangered Species Act].
- U.S. Fish & Wildlife Service – Informal Consultation for vernal pools and associated T&E species [Section 7 of the Federal Endangered Species Act].

Chapter 2 Project Alternatives

2.1 Project Alternatives

During the initial stages of the project development process, a group of alternatives was generated based on traffic data, planning documents, public input, and preliminary engineering data. Ten alternatives were presented in a Project Study Report, which is a planning document used to formally initiate this type of transportation project. Subsequent engineering and environmental studies generated additional information that was used by a “Value Analysis Team” to evaluate and refine project alternatives. Value analysis is defined by Caltrans as “the process used to improve the quality and reduce the cost of transportation projects and other Caltrans programs”. The value analysis process resulted in a recommendation from the team to proceed with two modified alternatives and an interim project to alleviate congestion and improve safety at the Stillwater/Route 44 intersection. The recommended interim project entails closure of the Stillwater Road connection on the north side of Route 44. This recommendation was discarded based on a traffic study that indicates it would result in increased traffic on Old Route 44, which has a higher than average accident rate for similar highways statewide. The recommended closure also generated substantial opposition when presented at a public information meeting.

The project development team decided to carry forward eight project alternatives, including the “no-build” alternative. These alternatives were presented during a public information meeting on July 31, 2003. Based on public input and a cost/benefit analysis, the alternatives were again refined. The cost/benefit analysis compared each alternative using criteria such as constructability, cost, potential environmental impacts, right of way impacts, etc., and how well the alternative satisfied the project purpose and need criteria. All alternatives, except the “No-Build” alternative, that did not fully meet the project purpose and need or would potentially result in excessive environmental impacts were eliminated from further consideration. A new alternative was developed which combines the features that best meet the project purpose and need, minimizes environmental impacts, and is constructible within scope, schedule and cost. This alternative, Alternative J, became the preferred alternative.

The alternatives that were analyzed represent a wide range of options to address the purpose and need criteria. The impending LOS problem could be solved by creating

additional travel lanes on Route 44 or through a combination of improvements to Route 44 and the County road system, such as creating overcrossings and upgrading Old Route 44 and/or extending Gilbert Drive to Airport Road and Deschutes Road. The operational and safety concerns at the at-grade intersections can be addressed by creating one or more overcrossings of various types. The decision whether an overcrossing or interchange would be constructed depends on whether the County road system is upgraded and/or extended to accommodate additional traffic or whether Route 44 is widened to handle the traffic. Since almost any type of interchange would function adequately, the goal in choosing an interchange would be to increase traffic operations and safety, minimization of cost, and minimization of impacts to adjacent properties. Maintaining connectivity between Stillwater Road and the regional and County road system can be accomplished by providing an interchange or an overcrossing(s) with improvements to the County road system.

Following is a description of each alternative. Final selection of an alternative will not occur until after the full evaluation of environmental impacts, full consideration of public input, and approval of the final environmental document.

2.1.1 Alternative J

Alternative J, the preferred Alternative (Exhibit 4), entails the following: addition of one traffic lane in each direction on Route 44 between Airport Road and Deschutes Road, construction of 9.8 foot wide shoulders and a 45.3 foot wide median, construction of a tight diamond interchange at the Stillwater Road intersection, realignment of Gilbert Drive where it intersects Stillwater Road, elimination of the Gilbert Drive road connection at Route 44, and reconstruction of the highway drainage system.

The extra shoulder and median width will allow for future widening to six lanes. The tight diamond interchange configuration will accommodate traffic volumes well into the future and will provide expansion capabilities to meet future capacity needs. The tight diamond configuration requires less area than other interchange types, thereby reducing right of way acquisition costs and impacts to adjacent properties. The overcrossing will be a single-span concrete structure with two traffic lanes in each direction and 9.8 foot wide shoulders. The overcrossing will be located approximately 262 feet west of the existing Stillwater Road intersection to improve the alignment with the County Road system. Some of the right of way necessary for the proposed interchange and realignment was acquired previously. The frontage

road south of Route 44, Gilbert Drive, will be realigned in the vicinity of the new interchange to accommodate the on and off-ramps. Bicycle lanes and sidewalks are not included in the project.

Both the Stillwater Creek Bridge and the Clough Creek Bridge are subject to scour. The existing Stillwater Creek Bridge has two sets of piers in the creek and Clough Creek Bridge is a single-span structure. Given the age and condition of the bridges it has been determined that it is more cost effective to replace the structures with new concrete single-span bridges rather than perform scour mitigation work at each bridge. New concrete single-span bridges will also be constructed at Stillwater and Clough Creeks for the proposed eastbound traffic lanes.

The highway storm water drainage system will be reconstructed and expanded to accommodate new drainage patterns and additional runoff resulting from the widening and increase in pavement. Some of the features included to protect water quality include terracing of large cut slopes and/or embankment, rock lined ditches, and vegetated swales. Appurtenant facilities to be constructed include highway signing and striping, including a new overhead sign at the eastbound Deschutes off-ramp; installation of a traffic monitoring camera at Airport Road and a traffic census unit at the Stillwater Road interchange ramps; upgrading guardrail to modern standards; and upgrading right-of-way fencing to freeway standards.

A minor deviation from standard highway design specifications will be necessary for interchange spacing, ramp spacing, median width, and reduced mainline lanes at interchanges. These changes will not affect the safety or operational characteristics of the highway.

Construction will require three years to complete. Traffic will remain on the existing highway while the roadbed for the new eastbound lanes is constructed. The new lanes will be constructed immediately south and parallel to the existing roadway. Open graded asphalt concrete will be utilized on new or reconstructed highway travel surfaces. When construction is complete, westbound traffic will use the existing lanes and eastbound traffic will be shifted to the new lanes. It is likely that the interchange structure and the bridges will be constructed simultaneously. Temporary intermittent detours or closures of the highway may be necessary throughout the construction period, particularly during construction of the interchange overcrossing and ramps. Bridge construction will require temporary access roads into the creek channels of Stillwater and Clough Creeks. A temporary work pad and falsework

system will be required within the stream channels to support the bridges under construction and to facilitate demolition of the existing bridges. It is likely that culverts will be installed temporarily beneath the work pads to pass flows through the work area.

Due to the rolling terrain within the project limits, additional fill material will be needed to construct highway embankments at various locations. It is estimated that 156,954 cubic yards of material will be needed. Importation from a commercial material source would be very costly, possibly exceeding one million dollars. The following options are being considered to reduce the cost of fill material: 1) Additional excavations can be made within the project limits to generate the material. It is proposed to acquire approximately 7 acres of additional right of way on the south side of the highway near the County transfer station from which material can be excavated. 2) Caltrans can solicit excess material from other highway projects or local construction projects. 3) The first two options can be combined to minimize the amount of additional earthwork and changes in topography within the project limits. 4) Purchase material from a commercial source.

Any excess material generated from the project, which is not suitable for use within the project, will be disposed of at an appropriate site subject to Caltrans approval. An example of material that would likely require disposal off-site includes waste wood products, reinforcing steel, and miscellaneous asphalt concrete rubble. Concrete rubble generated from bridge demolition, could be buried within the embankments of the interchange ramps.

Approximately 27 acres of new highway right of way will be acquired. The estimated construction and right of way cost for the preferred alternative is \$30,000,000.

2.1.2 Alternative “No-Build”

This alternative assumes no action will be implemented to address the capacity and operational deficiencies. As a result, the LOS would continue to deteriorate and operational problems would intensify as traffic volumes increase.

2.2 Rejected Alternatives

The following alternatives, depicted in Exhibit 5, were eliminated from further consideration because they do not fully meet the project’s purpose and need criteria

and/or would potentially result in more damage to the environment than the other alternatives.

2.2.1 Alternative A

Alternative A provides an overcrossing at Stillwater Road with “hook ramps”. Hook ramps would provide indirect access to and from Route 44. A median barrier would be constructed in the vicinity of the overpass to eliminate confusion and prevent illegal left turns on Route 44. The Gilbert Drive intersection at Route 44 would be closed. An overcrossing at Stillwater Road would solve the operational problems at the existing at-grade intersection and maintain connectivity between Stillwater Road and the regional and local transportation systems, but the capacity deficiency on Route 44 would not be addressed. This alternative was eliminated because it does not fully address the project purpose and need. Alternative A does not provide needed capacity improvements, which could be attained with improvements such as adding travel lanes on Route 44, upgrading Old 44 Drive to modern highway standards, or extending Gilbert Drive to Deschutes Road and Airport Road.

2.2.2 Alternative B1 & B2

These alternatives provide an additional lane in each direction on Route 44, an overcrossing at Stillwater Road, and the extension of Gilbert Drive west to Airport Road and east to Deschutes Road. The difference between the two alternatives is that B1 connects directly to Deschutes Road whereas alternative B2 connects to Deschutes Road via Hillside Drive. The proposed overcrossing would eliminate the operational and safety concerns related to the existing at-grade intersections. The extension of Gilbert Drive to Deschutes Road and Airport Road would relieve congestion on Route 44 and maintain connectivity between Stillwater Road and the regional and local transportation systems. These alternatives address the need for the project, but were eliminated due to excessive construction and right of way costs, and potential environmental impacts related to the extension of the frontage roads through undeveloped land. The extension of Gilbert Drive, which is part of the County transportation system, would require construction of several miles of new highway. It is likely that homes and structures could be avoided; however, right of way acquisition costs and the number of properties affected could be substantial. Natural resource issues include potential impacts to water quality, vernal pools, and associated threatened and/or endangered vernal pool invertebrates and plants, and loss

of oak woodland habitat. The potential for these impacts exists due to the need for extensive vegetation clearing and soil disturbance in previously undisturbed areas.

2.2.3 Alternative C

Alternative C provides a diamond interchange at Stillwater Road. Gilbert Drive will need to be realigned at the Stillwater Road intersection to accommodate the eastbound on and off-ramps. The Gilbert Drive road connection at Route 44 will be closed to traffic. The diamond interchange requires acquisition of new right of way in all four quadrants of the interchange to accommodate on and off-ramps. The overcrossing will have two traffic lanes with room for future expansion. Alternative C was rejected because, as with Alternative A, it does not solve the capacity problem. In addition, because of the type of interchange configuration, it will result in increased right of way costs, construction costs, and impacts to residences. The diamond interchange requires the most area of all the interchange configurations considered. In this case it is likely to require the relocation of both residences north of Route 44 on each side of Stillwater Road. The ramps of tight diamond interchange configuration, as proposed with Alternative J, are closer to the mainline and will not directly impact the two residences north of the highway.

2.2.4 Alternative D

Alternative D entails the addition of one traffic lane in each direction on Route 44 between Airport Road and Deschutes Road, construction of a diamond interchange at the Stillwater Road intersection, and elimination of the Gilbert Drive road connection at Route 44. While this alternative adequately addresses the capacity problem and maintains connectivity between the regional and local transportation systems, but it was rejected for the same reasons as Alternative C with respect to the diamond interchange configuration.

2.2.5 Alternative E

Alternative E entails the addition of one traffic lane in each direction on Route 44 between Airport Road and Deschutes Road, construction of a modified diamond interchange at Stillwater Road, and elimination of the Gilbert Drive road connection at Route 44. The modified diamond interchange is the same as the diamond interchange except that most of the westbound on-ramp shares the northeast quadrant of the interchange with the westbound off-ramp and is referred to as a loop ramp. This configuration reduces the right of way take in the northwest quadrant of the

interchange avoiding the necessity to take one residence. However, this alternative was also eliminated due to increased right of way requirements compared to the tight diamond interchange configuration and direct impact to the residence in the northeast quadrant of the interchange.

2.2.6 Alternative F

Alternative F entails the addition of one traffic lane in each direction on Route 44 between Airport Road and Deschutes Road, construction of an L7 type interchange at Stillwater Road, and elimination of the Gilbert Drive road connection at Route 44. The on and off-ramps of the L7 interchange are mostly confined to the northeast and southwest quadrants of the interchange. The ramp configuration is the same as the north side of the modified diamond interchange except the alignment of Gilbert Drive is different. Gilbert Drive west of Stillwater Road is further south and Gilbert Drive east of Stillwater Road is connected directly to the eastbound off and eastbound on-ramp. This alternative was eliminated because it requires more right of way than the tight diamond interchange configuration and is likely to directly impact residences in the northeast and southwest quadrants of the interchange.

2.2.7 Alternative G

This alternative provides an additional lane in each direction on Route 44 from Airport Road to Deschutes Road, an overcrossing at the Stillwater Road intersection, and signalization at the Airport Road interchange. Ramps for direct access to or egress from Route 44 are not provided with the overpass. Sufficient right of way will be acquired and the overcrossing will be constructed to accommodate conversion to a full interchange in the future when the need arises. The interchange configuration would be determined at a later date. To compensate for increased traffic demands at the Airport Road interchange caused by lack of on and off-ramps at the proposed Stillwater Overcrossing, signalization will be installed on the Airport Road interchange to manage traffic. This alternative was rejected because it would require extensive improvements on the county road system (Old Route 44) to accommodate additional traffic caused by the closure of the Stillwater and Gilbert intersections at Route 44. Traffic from the Stillwater and Gilbert areas would be routed to and from Old Route 44 which currently has an accident rate higher than the statewide average for similar highways. Old Route 44 would require improvements such as additional width for traffic lanes and shoulders, sight distance and alignment improvements.

2.2.8 Alternative H

This alternative would add one lane in each direction on Route 44. Gilbert Drive would be extended westerly to Airport Road and easterly to Deschutes Road. It would address the capacity problem on Route 44 and improve traffic circulation by providing alternate routes for local traffic. However, this Alternative was eliminated from further consideration due to excessive construction and right of way costs, and potentially significant environmental impacts related to the extension of the frontage roads through undeveloped land as discussed for Alternatives B1 and B2.

2.2.9 Alternative I

Alternative I involves the addition of one traffic lane in each direction on Route 44 between Airport Road and Deschutes Road, construction of an interchange at Stillwater Road (type to be determined), construction of an overcrossing at the Gilbert Drive intersection with Route 44. Gilbert Drive would then be connected to Old Route 44 to the north. Alternative I provides needed capacity upgrades on Route 44 and improves the safety and operational aspects of the highway. This alternative was eliminated from further consideration due to the marginal benefit from an additional overcrossing (at Gilbert Drive).

Chapter 3 Affected Environment, Environmental Consequences, and Mitigation Measures

3.1 Hydrology, Water Quality, Storm Water Runoff

The proposed project is located in the Sacramento River Drainage Basin within the Stillwater and Cow Creek watersheds. The western portion of the project drains into the Stillwater Creek Watershed. This watershed encompasses an area of approximately 76 square miles. Elevations range from 340 feet at the confluence of the Sacramento River to 2,620 feet at the north end of the watershed on Bear Mountain. Tributaries include Clough Creek, Clover Creek, Moody Creek, Salmon Creek, and the East and West Forks of Stillwater Creek. The eastern portion of the project drains into the Cow Creek watershed. The Cow Creek watershed encompasses approximately 431 square miles with elevations ranging from 340 feet at the valley floor to 7,300 feet at the eastern edge. Tributaries include Clover Creek, Little Cow Creek, Main Stem Cow Creek, Oak Run Creek, Old Cow creek, and South Cow Creek.

The primary federal law regulating Water Quality is the Clean Water Act. Section 401 of the Act requires a water quality certification from the State Board or Regional Board when a project: 1) requires a federal license or permit (an Army Corps Section 404 permit is the most common federal permit for Caltrans projects), and 2) will result in a discharge to waters of the United States.

Section 402 of the Act establishes the National Pollutant Discharge Elimination System (NPDES) permit system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. To ensure compliance with Clean Water Act Section 402 the State Water Resources Control Board (SWRCB) has issued a NPDES Statewide Storm Water Permit to regulate storm water discharges from Caltrans facilities both during and after construction, as well as from existing facilities and operations. The Statewide Storm Water Permit requires Caltrans to comply with the requirements of the General Construction Permit issued by the SWRCB to regulate discharges from construction activities which includes clearing, grading, disturbance to the ground, such as stockpiling or excavation, that results in soil disturbances of at least one acre of total land area. Construction activity that

results in soil disturbances of less than one acre is subject to the General Construction Permit if the construction activity is part of a larger common plan of development that encompasses one or more acres of soil disturbance or if there is significant water quality impairment resulting from the activity. The Statewide Storm Water Permit requires development of a Storm Water Pollution Prevention Plan (SWPPP) to address water pollution control. The SWPPP is prepared by the contractor and is subject to Caltrans' approval. The SWPPP identifies construction activities that may cause pollutants in storm water and the temporary best management practices (BMPs) that will be utilized to control these pollutants.

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.

3.1.1 Impacts

The project will result in the disturbance of approximately 81 acres. Proposed side slopes are 1:2 (vertical/horizontal) for cuts and 1:4 for fills. Preliminary geotechnical studies indicate soils are erosive, especially throughout the eastern half of the project. Erosion and sediment transport resulting from unstable or unprotected soils can adversely affect water quality.

Construction of additional traffic lanes, including paved shoulders and median, will add 27.2 acres of pavement within the watershed. This additional impervious area will generate a 10 percent increase in highway storm water runoff. Increased volumes could result in increased runoff velocity, soil erosion, and an increase in the concentration of chemical constituents contained in highway storm water runoff.

Bridge construction and modification of the highway drainage system will require work within stream channels. These activities may involve excavation and/or placement of fill within stream channels, dewatering or diversions of water, vegetation removal, and equipment access within the stream channels. This activity has the potential to result in temporary increases in turbidity and suspended solids and discharge of toxic substances. Equipment may discharge toxic substances into surface and/or groundwater as a result of improper operation, maintenance or accidents.

The new bridges will have drainage systems to remove storm water from the traveled way to prevent accumulations and/or freezing of water. The drainage system may discharge storm water directly into the creeks below.

Exploratory drilling and pile driving associated with bridge foundations have the potential to directly affect groundwater. However, given the localized nature of this work, any effects upon groundwater would be negligible.

3.1.2 Mitigation Measures

The contractor is required to prepare a SWPPP, which will identify potential sources of pollution and temporary BMPs to protect water quality. In addition, the project includes permanent BMPs which are identified during the planning and design phase of the project. The following permanent BMPs are proposed to stabilize disturbed earth and prevent sediment transport: preservation of existing vegetation, installation of energy dissipation devices at outlet structures, construction of rock lined channels, creation of vegetated swales, hydro-seeding and planting woody vegetation, placement of RSP on disturbed streambanks where vegetation cannot be expected to become established, and slope terracing to facilitate drainage on large cuts and fills.

Vegetated swales will be constructed within the southwest and southeast quadrants of the Deschutes interchange. The swales will intercept low flows from the drainage ditch that flows parallel to, and south of, Route 44. The ditch will be reconstructed and lined with rock to prevent scour and dissipate the velocity of high flows. A rock check dam will be constructed in the channel to divert low flows into the interchange swales. The vegetated swales will aid the removal of sediment and chemical constituents contained in storm water prior to discharging at Cow Creek.

The contractor is required to adhere to Caltrans' standard specifications and special provisions pertaining to water quality. The standard specifications pertaining to water quality include dust control, clearing and grubbing, earthwork, erosion control, and water pollution. In addition, the contractor is required to comply with the terms and conditions of regulatory permits issued by the Department of Fish & Game, the Regional Water Quality Control Board, the Army Corps of Engineers, and any conditions imposed by the National Marine Fisheries Service as a result of informal consultation. Appropriate regulatory guidelines will be followed for any dewatering, and if required, siphoning operations within live streams.

Implementation of the above mitigation measures and adherence to Caltrans' contract plans, specifications and special provisions will ensure that water quality impacts are reduced to a level below significance with respect to CEQA and NEPA guidelines.

3.2 Hazardous Waste

Hazardous waste is regulated at the local, state and federal levels. The various jurisdictions and agencies include cities and counties, the California Environmental Protection Agency, California State Water Resources Control Board, the California Department of Toxic Substances Control and the U.S. Environmental Protection Agency.

An Initial Site Assessment (ISA) was conducted to determine if there is potential to encounter hazardous waste within the project limits. The ISA consisted of database inquiries, a review of as-built highway plans, and a field review of the project limits.

3.2.1 Impacts

The ISA revealed the following:

- There are no sites listed on the April 1998 List of Hazardous Waste Sites (Cortese List Sites) within or adjacent to the limits of work.
- Aerially deposited lead may be present in soils adjacent to the highway due to the use of leaded gasoline prior to 1986. Routes of particular concern are those which experienced high vehicle emissions due to high traffic volumes, congestion, or stop and go situations.
- Yellow traffic striping paint and thermoplastic striping may contain heavy metals. When the striping is removed exclusive of the asphalt concrete, by grinding or abrasive blasting, the residue may contain high concentrations of heavy metals, including lead. Lead may also be present in the bridge paint systems.
- Asbestos containing material may be present in shims that support the metal bridge rail on Stillwater and Clough Creek Bridges.

3.2.2 Abatement Measures

Prior to construction, soils adjacent to the highway will be tested to verify lead concentration levels. If lead levels are found to exceed State and Federal thresholds

for hazardous waste, the contaminated soil will be removed and disposed in accordance with the laws governing hazardous waste.

Special provisions will be added to the contract to address the removal, handling and disposal of paints and traffic striping that contain heavy metals.

Prior to construction, bridge rail shims will be tested to determine if they contain asbestos. If asbestos is present, special provisions will be included in the contract to address the removal, handling and disposal of the material.

If any previously unknown sources of hazardous waste are discovered during construction, work in that area will cease until a qualified contractor can remove and dispose of the waste in accordance with State and Federal laws governing hazardous waste.

3.3 Noise Levels

Regulations pertaining to highway noise levels are found in the Code of Federal Regulations (23 CFR 772) and the California Streets and Highways Code, Section 216. Caltrans has prepared a noise report which provides relevant background information on noise, describes existing noise conditions within the study area, estimates impacts of project alternatives on noise conditions within the project area, and identifies preliminary noise abatement measures and noise mitigation measures necessary to comply with state and federal noise requirements.

The primary source of ambient noise in the project area is highway traffic. Noise receptors in the project vicinity include residences, commercial businesses, and the Bishop Quinn High School/St. Francis Middle School campus northwest of the Deschutes Road interchange. A map depicting noise receptors in the project vicinity is included in Appendix C.

A field investigation was conducted to analyze site conditions and measure noise levels for the existing conditions. Short-term noise levels, lasting 15 minutes, were measured at eight sample locations throughout the project limits to quantify the ambient noise level and to establish data for a computerized noise prediction model. Long term noise levels, lasting one week, were measured at a fixed location to quantify noise levels for a typical 24 hour period. The noise prediction model is a computer program that calculates traffic noise based on the geometry of the site, which includes the positioning of traffic lanes, noise receptors (location of people),

and physical barriers. The short-term and long-term noise data is entered into the noise modeling program, as well as the hourly traffic volumes and speeds of automobiles, medium trucks, and heavy trucks. The noise model predicts peak hour traffic noise levels at designated receptor locations for the preferred project alternative and the “no-build” alternative for the current year and the year 2030. The proposed project is expected to provide an acceptable level of service until the year 2030.

3.3.1 Impacts

Federal regulations define a noise impact in a residential area as an increase in the noise level that approaches (within 1 decibel) or exceeds 67 decibels. A substantial noise increase is defined as a predicted noise level that exceeds the existing noise level by 12 decibels. It is widely accepted that the average healthy ear can barely perceive noise level changes of 3 decibels. Permanent and temporary noise impacts were analyzed based upon criteria such as context (setting), intensity (increase in noise level and number of people affected), and noise level thresholds established by the FHWA for various settings such as residences, open land, commercial areas, school and churches, etc.

The noise prediction model indicates that traffic noise levels will increase slightly by the year 2030, regardless of whether or not the proposed project is implemented, due to increasing traffic volumes. At two residential locations, receptors 18L and 19R, the traffic noise level is expected to approach or exceed the federal threshold of 67 decibels. Compared to the “No Build” alternative, implementation of the proposed project will result in little or no change at some locations and a reduction in noise at other locations. A reduction in noise level may be a result of more efficient traffic circulation, i.e., less stopping and starting and a more uniform traffic flow, which helps offset slight noise level increases resulting from the expanded highway capacity.

Traffic noise levels in the vicinity of the Bishop Quinn High School/St. Francis Middle School campus will be similar with or without the proposed project due to the limited changes that will occur near campus. Likewise, commercial establishments near the existing interchanges will not be impacted by traffic noise level increases.

Construction equipment will result in temporary substantial increases in noise levels and vibrations in the project vicinity. Construction equipment used in highway and bridge construction typically produces noise levels in the range of 70 to 100 decibels

at a distance of 50 feet; pile drivers being the loudest. A pile driver will be used for construction of bridges at Stillwater Creek and Clough Creek and possibly for the proposed overhead structure at Stillwater Road.

3.3.2 Mitigation and Abatement Measures

Federal noise abatement regulations require implementation of noise abatement measures when there is a noise impact and it is feasible and reasonable to implement the abatement measure(s). The abatement of highway noise usually entails construction of a sound barrier. To be considered feasible, the abatement measure must attain a minimum reduction in the noise level of 5 decibels at the receptor location. The factors considered when determining if an abatement measure is feasible and reasonable include, but are not limited to the following: cost, expected life of abatement measure, physical and environmental constraints, aesthetics, and opinions of impacted residents. The noise prediction model estimates that a noise impact will occur at one location. It is predicted that the proposed project will cause the noise level to increase to approximately 66 decibels by the year 2030, 1 decibel over the “No Build” alternative. Given the physical constraints imposed by topography, the estimated cost, and the magnitude of the potential impact, it is not reasonable or feasible to construct a noise barrier at this location.

The following measures will be implemented to minimize the effects of temporary increases in noise and vibration during construction: the contractor will be required to adhere to Caltrans’ Standard Specifications, Section 7-1.01I (Sound Control Requirements). The contractor shall also comply with all local sound control and noise level rules, regulations, and ordinances. In addition, the contractor shall adhere to the following contract Special Provisions: The noise level from the Contractors’ operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 decibels at a distance of 50 feet. The noise level requirement shall apply to equipment on the job site, including but not limited to trucks, transit mixers, or transient equipment that may or may not be owned by the Contractor. All internal combustion engines used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without a muffler.

3.4 Air Quality

The project is located within the Sacramento Valley Air Basin within the jurisdiction of the Shasta County Air Quality Management District. Emissions and ambient air quality are the two standards by which air pollution is regulated. If there is at least one violation of a State standard, the area is designated “non-attainment” for that pollutant. If a State standard is not violated within a three year period, the area is considered “attainment”. A pollutant is designated “unclassified” if the data are incomplete and do not support a designation of attainment or non-attainment. With respect to the proposed project, the air pollutants of concern are carbon monoxide (CO), ozone, and particulate matter 10 microns or less in diameter (PM₁₀). Shasta County is currently in attainment or unclassified for listed State and Federal pollutants except for the State standard for ozone and PM₁₀. [California Air Resources Board, 2002].

3.4.1 Impacts

A project level impact analysis was performed to predict carbon monoxide(CO) concentrations for the current year and the years 2020 and 2030. The results indicate that under peak traffic volumes and worst-case meteorological conditions, when combined with background CO levels, the predicted CO concentration for the preferred project alternative would be similar to the “no-build” alternative. Results for both the preferred and “no-build” alternatives are below the federal and state standards for CO. Implementation of the proposed project is expected to reduce the levels of highway generated air pollution in the immediate area due to improved capacity and operational efficiency.

There are no local records of state and federal standards for PM₁₀ exceedance. Implementation of the preferred project alternative will relieve traffic congestion and improve operations at the Route 44/Stillwater Road intersection, thereby decreasing potential increases in the level of PM₁₀. Other factors which minimize local levels of PM₁₀ include the following: The project is not in a heavy snow zone and therefore does not require the application of substantial amounts of traction sand. There are no unpaved shoulders within the project limits.

The proposed project will result in the generation of short-term construction related air emissions, including fugitive dust and exhaust emissions from construction equipment. Dust, which is classified as PM₁₀, will be generated during excavations, grading, hauling, bridge demolition, and pavement grinding operations.

3.4.2 Mitigation

The contractor is required to comply with Caltrans' Standard Specifications, which include Section 7-1.01F "Air Pollution Control" and Section 10 "Dust Control". The dust control specification consists of "applying either water or dust palliative, or both, for the alleviation or prevention of dust nuisance." In addition, the Environmental Protection Agency's (EPA) National Emissions Standards for Hazardous Air Pollutants (NESHAP) and the California Air Resources Control Board (CARB) rules require the contractor to notify the CARB in writing prior to demolition or renovation of bridges.

3.5 Floodplains

Route 44 within the project limits crosses Stillwater Creek and Clough Creek. The base 100 year floodplains of the creeks are contiguous in the vicinity of the highway. Portions of the existing bridges and the adjoining highway embankments are located within the base floodplain. The existing Stillwater Creek Bridge is a three span concrete structure with two piers in the stream channel. The piers exhibit evidence of scour and tend to catch substantial amounts of woody debris during high flows. The Clough Creek Bridge is a single span concrete structure, which has no piers. This bridge exhibits evidence of scour at the abutments.

3.5.1 Impacts

Construction of additional traffic lanes will require a new bridge at both Stillwater and Clough Creeks. In addition, the existing bridges will be replaced due to age and susceptibility to scour at the foundations. Construction of new bridges will result in additional encroachment, both temporary and permanent, within the base floodplain. Temporary impacts will result from construction access and staging requirements. Permanent impacts include placement of the bridge abutments, RSP, and construction of highway embankments within the base floodplain. However, each new bridge will be a slightly longer, single span concrete structure. The lack of piers will eliminate debris retention, and reduce scour potential, stream bank erosion, and bridge maintenance. The encroachment of bridge abutments and associated highway embankment within the floodplain will be minimized due to the additional bridge length and lack of piers. A location hydraulic study indicates that the encroachment will not result in an adverse effect upon the floodplain elevation or adversely affect beneficial floodplain values.

3.5.2 Mitigation

Temporary environmentally sensitive area (ESA) fencing will be installed upstream and downstream of the construction area to limit vegetation removal and encroachment within the stream channel to the minimum extent necessary to construct the project.

3.6 Planning & Land Use

The western limit of the project is the Airport Road Interchange, which is located approximately 0.5 mile west of the Redding City limits. The area surrounding the interchange is zoned for commercial development. The area immediately north of the interchange includes various commercial and high-density residential development. The south side of the interchange is currently undeveloped. Commercial development is progressing further north and west of the interchange, including a major sports complex that was completed in 2004. Major commercial and residential development is also occurring, or planned, several miles south of Route 44 on Airport Road.

The unincorporated town of Palo Cedro is located at the east end of the project and is accessible from the Deschutes Road Interchange. The Bishop Quinn High School and St. Francis Middle School, which share the same campus, are located near the northwest quadrant of the interchange. Shingletown is the next town center approximately 20.7 miles east of Palo Cedro on Route 44.

The area between the two interchanges is zoned rural residential, agricultural, and open space. Two perennial creeks, Stillwater and Clough, cross the highway near the westerly project limits.

Highway right of way exists for an overcrossing at Stillwater Road and additional lanes south of the existing traveled way. As an element in the Shasta County Regional Transportation Improvement Program, the proposed project is among the highway improvements identified to accommodate growth in keeping with local plans.

3.6.1 Impacts

The project will require the acquisition of approximately 27 acres of additional right of way along the south side of Route 44 and in the vicinity of the proposed

interchange. Approximate boundaries of current and proposed right of way are depicted on Exhibit 4, Maps 1 through 6.

Approximately 8.7 acres of the new right of way would consist of farmland considered “important” by the California Department of Conservation. The conversion of this farmland to non-agricultural use represents 0.03 percent of the 35,000 acres of “important” farmland in Shasta County.

The proposed Stillwater Road Overcrossing will be situated approximately 262 feet west of the existing at-grade intersection to improve the alignment of Stillwater Road. The acquisition of additional right of way will affect several residential properties in the vicinity of the proposed interchange to varying degrees.

No minority or low-income populations have been identified that would be adversely affected by the proposed project. The proposed project is among the highway improvements identified in the Shasta County Regional Transportation Improvement Plan to accommodate planned growth. Overall, the project is consistent with State and local planning objectives and the current development patterns occurring in the vicinity of Route 44 between the City of Redding and the community of Palo Cedro. If any of the residents are displaced as a result of the project, there is sufficient housing available to allow the residents to relocate.

This project has been developed in accordance with Title VI of the Civil Rights Act of 1964 and Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.” The Executive Order requires each federal agency (or its designee) 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.

3.6.2 Mitigation

Following project approval, plan sheets will be developed based upon field survey data. Caltrans Right of Way Office will use the plan sheets to assess impacts to properties and consult with property owners to obtain their concurrence on the severity of impacts to their property, i.e., partial impact vs. total impact. Caltrans will offer compensation to affected property owners based upon fair market value for impacts to their property.

Relocation assistance payments and counseling will be provided to persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act to ensure adequate relocation and a decent, safe, and sanitary home. All eligible persons will be entitled to moving expenses. All benefits and services will be provided equitably to all residents and businesses without regard to race, color, religion, age, national origin and disability as specified under Title VI of the Civil Rights Act of 1964.

3.7 Traffic & Transportation

Increasing traffic volumes at peak hours on this section of Route 44 are responsible for traffic congestion and diminishing levels of traffic operation at the at-grade intersections of Stillwater Road and Gilbert Drive. The highest traffic volumes on Route 44 occur in the westbound direction in the morning and in the eastbound direction in the evening. During the morning, local residents are entering westbound Route 44 to commute to Redding. At the same time, a substantial number of motorists traveling eastbound on Route 44 are attempting to turn left at Stillwater Road to access Palo Cedro via Old Highway 44. More than fifty percent of the traffic enters or exits the highway at the Deschutes Road interchange in Palo Cedro, and for this reason the project does not propose extending the four lane configuration past the Deschutes Road overcrossing.

The existing Freeway Agreement between Caltrans and Shasta County allows closure of the at-grade intersections at Stillwater Road and Gilbert Drive at such time an overcrossing is constructed at Stillwater Road and a south side frontage road from Airport Road to Deschutes Road is constructed. The preferred project alternative would require revision of the Freeway Agreement to allow closure of the Stillwater Road and Gilbert Drive intersections with the addition of an interchange at Stillwater Road.

The Shasta County RTPA is responsible for preparing the Regional Transportation Plan (RTP) for the County every three years. This document helps establish the region's transportation priorities and obtain federal funding. The 2004 RTP lists the proposed project as one of the high priority projects for Shasta County.

3.7.1 Impacts

The current (year 2005) demand for this segment of highway is at capacity, LOS “E”, during the morning and afternoon peak periods. Projected traffic volumes would generate a LOS “F” by the year 2010 if additional capacity were not provided. In addition, safety and operations within this section of highway would diminish, resulting in frustration and lost time for commuters. Construction of the preferred alternative will provide a LOS of “A” or “B” until the year 2030 and improve safety and operations on this section of highway.

Implementation of Alternative J would include the closure of the Gilbert Drive intersection at Route 44. This would require motorists that usually use the Gilbert Drive intersection to utilize the new Stillwater Road interchange, which would add approximately 0.9 mile each way for motorists traveling to and from Palo Cedro.

3.8 Visual/Aesthetics

Route 44 at this location is a relatively straight section of two-lane highway, oriented east/west, in rolling terrain. Land use adjacent to the highway is predominantly rural residential. Commercial and high density residential development is present in the vicinity of the interchanges at each end of the project limits. Travelers on Route 44 have intermittent distant views of the Cascade Mountain Range to the east and the Trinity Mountain Range to the west. The viewshed on either side of the highway includes a combination of native oak woodlands and rural homesites. The highway crosses two small perennial streams, Stillwater Creek and Clough Creek, which have dense riparian corridors. Another small drainage east of Clough Creek is impounded south of the highway to create a small lake. Residential properties line the east and west sides of the lake.

3.8.1 Impacts

The proposed widening of Route 44 and the addition of an interchange structure will result in a change in the visual character of the highway corridor. These changes are compatible with local and regional plans and zoning for the Route 44 corridor and are not considered significant. The proposed project will result in the removal of native vegetation and the creation of new cuts and fill slopes. Some residential properties that were previously shrouded from the highway by vegetation and/or topography will now be exposed. Vehicle headlights will produce new sources of lights and glare from the new traffic lanes and the interchange ramps and overcrossing.

3.8.2 Mitigation Measures

The project will be designed to limit vegetation clearing to the minimum necessary to construct the project. Cutslope edges will be rounded to blend into the surrounding topography. Disturbed areas will be hydro-seeded with an appropriate seed mix, with a high concentration of native wild flowers. Native oak woodland species will be replanted at a ratio of 3:1 in suitable locations within disturbed portions of the highway corridor beyond the clear recovery zone, which is 20 feet from the edge of traveled way. Riparian vegetation will be planted upon disturbed portions of streambanks in Stillwater and Clough Creeks which are not covered with RSP or shaded by the bridges.

3.9 Wetlands and Other Waters

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

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is administered by the U.S. Army Corps of Engineers (Corps) with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (E.O.11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the

construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the Department of Fish & Game (DFG) and the Regional Water Quality Control Boards. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify DFG before beginning construction. If DFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. DFG jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the Corps may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the DFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The Regional Water Quality Control Board also issues water quality certifications in compliance with Section 401 of the Clean Water Act.

Water resources within the project limits have been categorized as perennial waters, perennial wetlands, seasonal waters, and seasonal wetlands. Route 44 crosses two perennial streams, Stillwater and Clough Creeks, and several unnamed seasonal streams. One of the seasonal streams, approximately 0.2 mile east of the intersection of Stillwater Road, has been dammed creating a pond immediately south of Gilbert Drive. The pond is considered a perennial water. Perennial wetlands are present around the perimeter of the pond. Perennial and seasonal wetlands are located at various locations within and adjacent to the project limits.

3.9.1 Impacts

Bridge construction and demolition will result in temporary and permanent impacts at Stillwater and Clough Creeks. Temporary impacts will result from the removal of riparian vegetation, streambank modifications for access into the stream channel, stream diversions and/or dewatering of the work area, and the placement of fill within the streambeds to create temporary work pads. The impacts will consist of increases in turbidity, solids, and water temperature. The bridge construction and demolition will occur over the course of two years. Stream diversions and a work pad consisting of clean cobbles will be necessary for bridge construction and demolition. It is likely

that culverts will be placed beneath the cobble pad to maintain the stream flow. In addition to providing a level work platform, the cobble work pads will provide a foundation for falsework erection and an area upon which to collapse the old bridges. Falsework is a temporary structure comprised of wood and/or steel which supports the bridge while it is under construction. The vertical support members of the falsework system may be driven into the streambed. All construction materials except the cobbles will be removed from the streambeds following construction.

Permanent impacts within the stream channels consist of the placement of RSP along the streambanks in the vicinity of the bridge abutments to protect the bridge foundations and highway embankments from scour. The toe of the RSP slope will be “keyed” into the streambank for stability. The RSP will restrict vegetation growth, however, it is not desirable from a safety or maintenance perspective to have dense vegetation close to the bridge.

The man-made pond east of Stillwater Road and south of Gilbert Drive is fed by a seasonal stream which is conveyed beneath Route 44 and Gilbert Drive in separate culverts. The gap between the two culverts supports perennial wetlands. The gap will be closed with a section of culvert to accommodate the new roadbed for the eastbound lanes. Work on the culverts may require temporary dewatering and closure of the culvert outlet south of Gilbert Drive, which may require temporary encroachment within the pond and perennial wetlands on the south side of Gilbert Drive.

A seasonal stream crosses Route 44 and Gilbert Drive just east of the existing Stillwater Road intersection. Due to the realignment of Gilbert Drive in the vicinity of the proposed Stillwater Road interchange, it will be necessary to extend the culvert slightly south of the new Gilbert Drive alignment. A section of the stream channel and a small associated seasonal wetland will be directly impacted by this work.

Another seasonal drainage on the south side of Route 44 between Deschutes Road and the intersection of Gilbert Drive conveys highway storm water runoff and offsite storm water to Cow Creek. Portions of the channel west of Deschutes Road are severely eroded. The new traffic lanes will add additional storm water to this drainage. Proposed improvements include reconstruction of the channel sides and bottom, straightening the channel alignment, and lining the channel bottom and sides with rock to dissipate flow velocity. In addition, vegetated swales will be created within the southwest and southeast quadrants of the Deschutes Road Interchange to

accommodate low flows from the drainage channel. A rock check dam will be constructed in the channel to divert low flows through the interchange swales and back into the original channel before entering Cow Creek.

A small seasonal wetland of approximately 0.01 acre is located on the north side of Route 44 east of the Gilbert Drive connection at Route 44. This feature will be entirely covered with fill as a result of work necessary to reconstruct the highway to conform to modern design standards. This work entails improving the cross slope of the roadway which will raise the elevation of the roadway slightly. The placement of additional shoulder backing and embankment material will cover the wetland. The wetland cannot be avoided without making a steeper slope or installing guardrail at this location, which would compromise the safety of motorists. Additional work required at this location includes additional grading to improve the clear recovery zone for errant drivers and reconstructing the right of way fence to current freeway standards.

A summary of estimated temporary and permanent impacts to wetlands and waters follows:

Type of Water	Total Area Present (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Perennial Waters	0.61	0.08	0.07
Seasonal Waters	1.05	0.14	0.91
Seasonal Wetlands	0.67	0.09	0.38
Totals	2.33	0.30	1.36

3.9.2 Mitigation Measures

Temporary and permanent impacts resulting from encroachment within jurisdictional waters will be avoided and minimized to the extent possible. ESA fencing will be erected at strategic locations to protect sensitive resources such as streams, wetlands and vegetation adjacent to the work area, from inadvertent impacts during construction.

The proposed new bridges will be longer, single-span structures which will be an improvement over existing bridges with respect to stream morphology. Following

construction, RSP will be placed on disturbed stream banks in the vicinity of the bridge abutments. Riparian vegetation will be replaced on disturbed portions of the streambanks not covered by RSP. Culverts of adequate size will be placed beneath the temporary cobble work pads at a gradient that ensures passage of aquatic organisms. It is proposed to spread the cobbles throughout the stream channel following construction to replace substrate lost as a result of construction activities.

Where possible, riparian vegetation will be cut off at ground level and covered with gravel, which will be removed following construction to allow regeneration of the plants.

The permanent loss of approximately 0.09 acre of wetland functions and values will be mitigated by replacement offsite at an approved mitigation area, such as the Stillwater Plains Mitigation Bank, at a ratio of 2:1 pending approval by the Army Corps of Engineers.

3.10 Fish and Wildlife

Caltrans biological staff prepared a Natural Environment Study which identifies plant and animal species and habitat in the project vicinity, potential effects to the natural environment that may occur as a result of the project, and measures to avoid, minimize and compensate for impacts.

The concrete bridges at Stillwater and Clough Creeks provide nesting and roosting habitat for cliff swallows and bats respectively. Cliff swallows build mud nests on the underside of the bridges. The birds are attracted by the abundance of mud for nest building and insects for feeding. Other endemic and migratory species nest in the woodlands adjacent to the highway. The general nesting period for birds in this region is March through August. Bats are also attracted to the bridges due to the availability of insects near the waterways and the cave-like bridges. An inspection was made for bats at each of the bridges. No crevices or cavities suitable for habitation were found on either bridge. A small amount of guano found beneath the Clough Creek Bridge indicates night roosting by foraging bats.

Clough Creek joins Stillwater Creek approximately 0.5 mile downstream. Stillwater Creek then flows into the Sacramento River another 7.5 miles downstream. The Sacramento River supports anadromous fish, however, surveys have found no evidence of salmon more than 0.5 mile upstream of the Sacramento. There are no

known fish barriers on Stillwater Creek between the Sacramento River and the project area.

3.10.1 Threatened and Endangered Species

The project area includes potential habitat for listed vernal pool invertebrates (vernal pool fairy and tadpole shrimp) and anadromous fish (salmon and steelhead).

3.10.1.1 Invertebrates

Seasonal wetlands which may provide habitat for listed federally threatened invertebrates are present at various locations throughout the project limits and adjacent to the project site. Listed invertebrates include the federally threatened fairy shrimp (*Branchinecta lynchi*) and the federally endangered tadpole shrimp (*Lepidurus packardii*).

Two seasonal wetland areas were identified as potential habitat for listed fairy shrimp. One wetland is located on the north side of the highway west of the Gilbert Drive road connection. This is an isolated wetland of 0.01 acre located at the toe of the highway embankment within the highway right of way. This wetland feature may have formed as a result of original highway construction. The second wetland is located near the east end of the project just beyond the right of way fence on the south side of the highway. This wetland is 0.12 acre in area and is on private property. A seasonal stream is located immediately down gradient from the wetland feature.

There are seasonal wetlands with known populations of listed invertebrates in the vicinity of the project, but not within the area of potential impact.

3.10.1.2 Salmon

Stillwater Creek is habitat for state and federally listed salmonids. Species include state and federally threatened Central Valley spring-run chinook (*Oncorhynchus tshawytscha*), state and federally endangered Sacramento River winter-run chinook (*Oncorhynchus tshawytscha*), federal candidate species Central Valley fall/late fall run chinook (*Oncorhynchus tshawytscha*), and federally threatened Central Valley Steelhead (*Oncorhynchus mykiss*). A Biological Evaluation (BE) was prepared in accordance with Section 7 of the federal endangered species act. The BE resulted in a determination that the project is “not likely to adversely affect” listed salmonids or their critical habitat. The BE was submitted to the National Oceanic & Atmospheric Administration (NOAA) Fisheries to obtain concurrence with this determination. NOAA Fisheries responded with a letter of concurrence on November 3, 2004.

3.10.2 Impacts to Fish and Wildlife

The Migratory Bird Treaty Act of 1918, as amended, and Section 3503 of the California Fish and Game Code protect migratory birds, including their nests and eggs. Impacts to birds could include disruption of nesting behavior, nest loss, and direct mortality.

Temporary impacts to aquatic organisms may occur as a result of direct encroachment within the stream channels during bridge construction and demolition. The accidental discharge of fluids from construction equipment could result in toxic compounds entering the water. The accidental discharge of raw concrete into surface waters can result in an extreme change in pH that can cause short-term fish mortality.

Demolition of the existing bridges will temporarily eliminate one source of night roosting for bats. However, this will not result in bat mortality or affect the bat population due to the availability of other suitable natural and manmade habitat in the project vicinity.

3.10.2.1 Impacts to Invertebrates

The project will directly impact the wetland on the north side of the highway and may result in indirect effects to the wetland immediately south of the right of way boundary at the east end of the project.

The wetland on the north side of the highway will be entirely covered with fill as a result of work necessary to reconstruct the highway to conform with modern design standards. This work entails improving the cross slope of the roadway, which will raise the elevation of the roadway slightly. This will require adding additional shoulder backing and embankment material which will cover the wetland. The wetland cannot be avoided without making a steeper slope or installing guardrail at this location, which would compromise the safety of motorists. Additional work required at this location includes additional grading to improve the clear recovery zone for errant drivers and upgrading the right of way fence to current freeway standards.

The wetland at the east end of the project may be indirectly impacted by work proposed within an adjacent drainage channel within the highway right of way. The drainage channel is eroded and will need to be enlarged to accommodate additional storm water volume and velocity resulting from the project. The work entails reconstruction of the channel, including placement of rock in the channel to dissipate flows and prevent erosion within the channel. The wetland is located up gradient

from the drainage channel and will not be directly impacted by these activities, however, the wetland hydrology may be affected in some manner due to changes in drainage patterns and proposed drainage system modifications resulting from the project.

Wet season and dry season sampling of the two wetlands was performed pursuant to U.S. Fish & Wildlife Service protocol to determine if fairy shrimp or cysts were present. Wet season sampling was performed during the early spring of 2004 and resulted in negative findings. Dry season sampling was conducted in October and November of 2004 with negative findings. Based on these surveys it has been determined that the proposed project is “not likely to adversely affect” listed invertebrates. A Biological Evaluation reflecting this finding will be submitted to the U.S. Fish & Wildlife Service pursuant to Section 7 of the Federal Endangered Species Act.

3.10.2.2 Impacts to Salmonids

Suitable habitat for salmonids is present within Stillwater Creek, however, surveys by Chico State University found no evidence of anadromous fish within 7.5 miles of the project limits. Based on these surveys, informal consultation with NOAA Fisheries, and the anticipated impacts of the proposed work, it has been determined that the project is not likely to adversely affect listed anadromous fish or their critical habitat.

The removal of riparian vegetation from a segment of Stillwater Creek to facilitate bridge construction may result in a temporary reduction in the vegetation canopy that provides shade for the stream. This, in turn, may result in a smaller localized insect population upon which fry and juvenile fish rely. It may also result in a slightly higher water temperature in localized shallow pools.

3.10.3 Mitigation

The contractor will be required to remove trees during the period of September 1 through March 1 to avoid impacting nesting birds. To avoid impacting nesting swallows or other species that utilize bridges for nesting, the contractor will have the option to install exclusionary devices such as netting on the bridges, or work on critical parts of the bridges outside of the nesting period. Adherence to the contract plans, specifications and special provisions will ensure that fish and wildlife are not adversely affected by the project.

3.10.3.1 Invertebrates

It is anticipated that the U.S. Fish & Wildlife Service will concur with Caltrans' findings of "not likely to adversely affect".

Temporary ESA fencing will be installed on the right of way boundary to protect the wetland at the east end of the project from inadvertent encroachment and direct impacts during construction.

3.10.3.2 Salmon

Riparian vegetation removed as a result of the project will be replaced on-site within the disturbed areas where RSP is not placed. The addition of a new bridge will provide shading of the creek channel, which will immediately help offset, and possibly exceed, the temporary loss of shading from the removal of riparian vegetation.

3.11 Vegetation

The elevation within the project limits ranges from approximately 470 to 600 feet above sea level. The predominant habitat type is a highly variable climax woodland comprised mainly of blue oak interspersed with gray pine. Understories include a mixture of grasses and shrub species. Riparian habitat is present along the channels of Stillwater and Clough Creeks and at other locations where water ponds or drains intermittently throughout the year. Riparian species include cottonwood, sycamore, oak, willow, wild grape, blackberry, forbs and grasses. Habitat adjacent to the project limits beyond the highway right of way includes oak woodland, riparian, and agricultural and ornamental vegetation associated with homesites. No sensitive plant species were identified within the project limits. Yellow star thistle, a noxious weed, was observed at various locations throughout and adjacent to the project limits.

3.11.1 Impacts

The project will result in the disturbance of approximately 74 acres. Approximately seventy percent of the right of way area will be cleared of vegetation to accommodate the additional traffic lanes, interchange, and proposed material borrow site. The clearing will affect mainly blue oaks and a smaller proportion of live oak and gray pine. It is estimated that the project will result in the removal of approximately 350 mature trees, the majority of which are blue oak trees less than 12 inches in diameter at breast height.

Riparian vegetation present within the channels of Stillwater and Clough Creeks will be removed from within the highway right of way to facilitate bridge demolition and construction. It is estimated that temporary and permanent impacts will amount to 0.6 and 0.3 acre respectively. Small amounts of riparian vegetation will be removed at other drainage locations to accommodate highway widening, realignment of Gilbert Drive, and reconstruction of the highway drainage system.

3.11.2 Mitigation

The removal of riparian vegetation will be limited to the minimum necessary to accomplish the work. ESA fencing will be installed at strategic locations to protect vegetation beyond the work limits from inadvertent impacts. Where feasible, riparian vegetation that must be removed temporarily for construction purposes will be trimmed to ground level and covered with gravel to preserve the root system. The root system will provide soil stability and enable the plants to regenerate when they are uncovered following construction.

Topsoil will be stockpiled separately during the initial clearing and grading operation for use during the upland revegetation effort. Native oak woodland species will be replaced at a ratio of 3:1. Seedlings will be planted within the project limits where practicable beyond the clear recovery zone, which is 20 feet from the edge of traveled way. A temporary irrigation system is planned to facilitate revegetation. Replacement of oak woodland species will also occur offsite at an approved mitigation area, such as the Stillwater Plains Mitigation Bank. Replacement at an approved mitigation area will ensure preservation of large areas of habitat and protection of the habitat in perpetuity.

Disturbed areas will be hydro-seeded when final grading is complete. An appropriate native seed mix and plant list will be generated for specific applications throughout the project limits. Following construction, a separate contract will be initiated to plant riparian vegetation on disturbed sections of the banks of Stillwater and Clough Creeks. All erosion control items will consist of certified weed-free materials to prevent the spread of noxious weeds.

Additional clearing and earthwork may occur at the proposed borrow area at the west end of the project on the south side of the highway. This is a cost saving measure to reduce the need for the importation of fill from a commercial source. While this will result in additional vegetation removal and exposed soil, the disturbed area will be regraded and planted with native oak woodland species.

3.12 Cumulative Impacts

The project could result in impacts to water quality and oak woodland that, when combined with other projects affecting like environmental factors, could be cumulatively considerable with respect to CEQA guidelines. However, it has been determined that with the implementation of mitigation measures to avoid and minimize potential impacts to water quality, and with the replacement of oak woodland, the proposed project will not have a cumulatively considerable effect on these resources.

Projects which affect like environmental factors include transportation projects, and residential and commercial development. Project related actions that may affect water quality and oak woodland habitat include the destruction of wetlands and other surface waters, soil disturbance, removal of vegetation, improper construction management, and increases in impervious areas.

The loss of wetlands and other surface waters could result in a reduction in the number of plant and animal species, habitat, and wetland functions and values. Soil disturbance and vegetation removal creates potential sources of sediment and causes erosion. Sediment can adversely affect water quality standards, aquatic life, including threatened and endangered species in the project area. Improper construction management can result in the introduction of deleterious substances into surface waters. These substances include sediment, other solids, and chemical constituents present at construction sites. The creation of increased impervious area may increase the volume and velocity of storm water runoff, the amount and concentration of chemicals in storm water runoff, and possibly causes changes in the pH and temperature of storm water runoff.

Specific projects planned or recently constructed in the vicinity that may affect like environmental factors include the following:

- Sunset Oaks Townhouses – 55 townhouses and five single family homes on Hartnell Avenue, less than one mile west of Old Oregon Trail. CEQA process completed in July 2003.
- Clover Acres Subdivision – 46 single family units on Forest Hills Drive, less than one mile southwest of the Airport Road Interchange. CEQA process completed in April 2004.

- Shastina Ranch Subdivision – 460 residential parcels on Rancho Road, approximately 2 miles south of the Airport Road Interchange. CEQA process begun in April 2004.
- Redding Sports Complex – A 30 acre multi-sport complex owned by the City of Redding, but operated by a private firm. Located approximately one mile north of Route 44 on Old Oregon Trail. Opened for business in August 2004.
- Stillwater Business Park – A proposed 500 acre industrial park northeast of the Redding Municipal Airport, expected to employ 10,000 workers upon build-out. CEQA/NEPA process in progress.
- Airport Road Interchange ramp widening. Caltrans is proposing a project to widen the eastbound off-ramp at the Airport Road interchange to provide an additional lane. This will add ramp capacity to address increasing traffic volumes.

The following mitigation measures are included in the project to avoid and minimize impacts to water quality:

- Encroachment within the floodplain and surface waters during construction will be minimized to the extent practicable.
- New bridges at Stillwater and Clough Creek will be single-span structures which avoid or minimize encroachment within the floodplain and within the creek channels.
- ESA fencing will be installed at strategic locations during construction to prevent inadvertent impacts to vegetation and surface waters beyond the immediate work area.
- The contractor is required to adhere to Caltrans' Standard Specifications pertaining to water quality and the applicable regulatory permits, including guidelines for dewatering and siphoning operations within live streams.
- The contractor will prepare and implement a SWPPP, subject to Caltrans' approval, which will include temporary BMPs to control water pollution.
- Permanent BMPs are included in the project design. The proposed permanent BMPs include preservation of existing vegetation, installation of energy

dissipation devices in drainage channels and at outlet structures, creation of vegetated swales, hydro-seeding and replanting native vegetation in strategic locations, use of fiber rolls and silt fence, placement of RSP on disturbed streambanks where vegetation cannot be expected to become established, and slope terracing to facilitate drainage on large cuts and fills.

- Replacement and/or preservation of wetlands and oak woodland habitat at an approved off-site mitigation site.

Chapter 4 Public Scoping

The initial public scoping meeting was held on July 31, 2003, from 4:00 to 7:00 p.m. at the Bishop Quinn High School in Palo Cedro. A notice advertising the meeting was published in the following newspapers on the respective dates: Record Searchlight July 17th, 23rd, and 30th; East Valley times July 13th and 17th; and the Ridge Rider News July 21st and 28th. Comment cards were distributed at the meeting to solicit input on the project and rate project alternatives. More than 200 written comment cards and letters were received in response to the meeting. These comments were analyzed and considered during the project development process. Another public scoping meeting is planned to coincide with the circulation of this draft document. Appropriate notice of the meeting will be advertised before hand.

Chapter 5 List of Preparers

This Initial Study was prepared by the California Department of Transportation, North Region Office of Environmental Management, within input from the following Staff:

RUSSEL ADAMSON, Environmental Planner (Archaeology). Project Archaeologist.

TOM GRAVES, Associate Engineering Geologist. Contribution: District Hazardous Waste Coordinator

KELLY KASWUNIAK, Associate Environmental Planner (Natural Sciences). Biological Evaluation.

SUZANNE MELIM, Associate Environmental Planner (Natural Sciences). Contribution: Wetland Delineation.

AARON MCKEON, Associate Environmental Planner (Generalist). Contribution: Community Impact Assessment.

DAVE MOORE, Transportation Engineer. Contribution: Project Manager.

LARRY MOORE, Senior Transportation Engineer. Contribution: Design oversight.

JONATHAN OLDHAM, Senior Environmental Planner. Contribution: Environmental oversight.

KEITH POMMERENCK, Associate Environmental Planner. Contribution: Noise Analysis.

CHRIS QUINEY, Associate Environmental Planner (Generalist). Contribution: Environmental Coordinator/Document Writer.

PATRICK SULLIVAN, Landscape Associate. Contribution: Visual Impact Assessment.

BILL SUTHERLAND, Transportation Engineer. Contribution: Project Engineer.

SHARON TANG, Transportation Engineering Technician. Contribution: Air Quality Conformity Analysis.

Chapter 6 References

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Watershed Information Model. Internet site <http://wim.shastacollege.edu/>

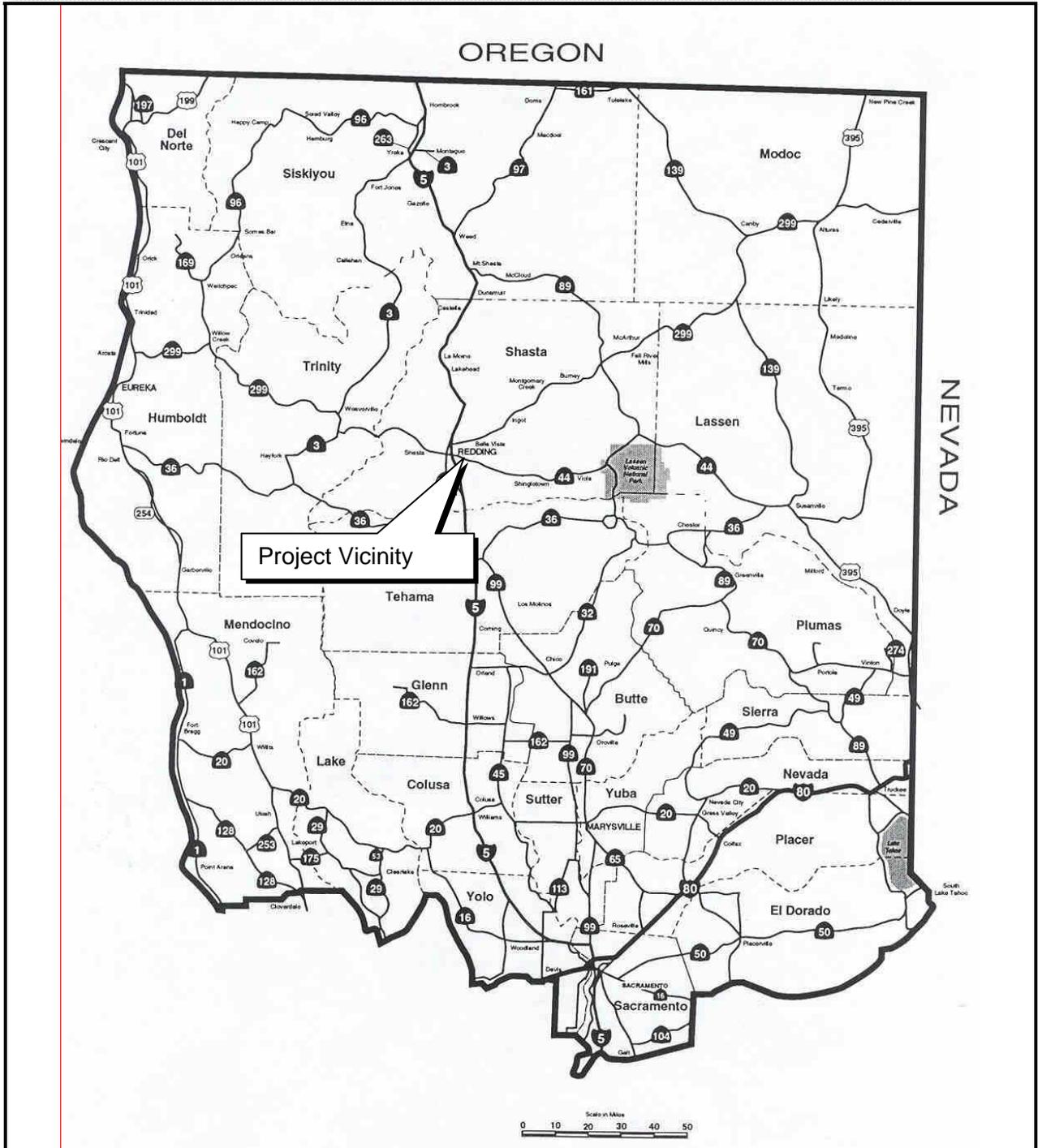


Exhibit 1 Project Vicinity Map

	State of California Department of Transportation	Capacity and Operational Improvements on Route 44 in Shasta County between Airport Road and Deschutes Road.
	SHA 44-PM 3.6/7.0 02-368400	
		

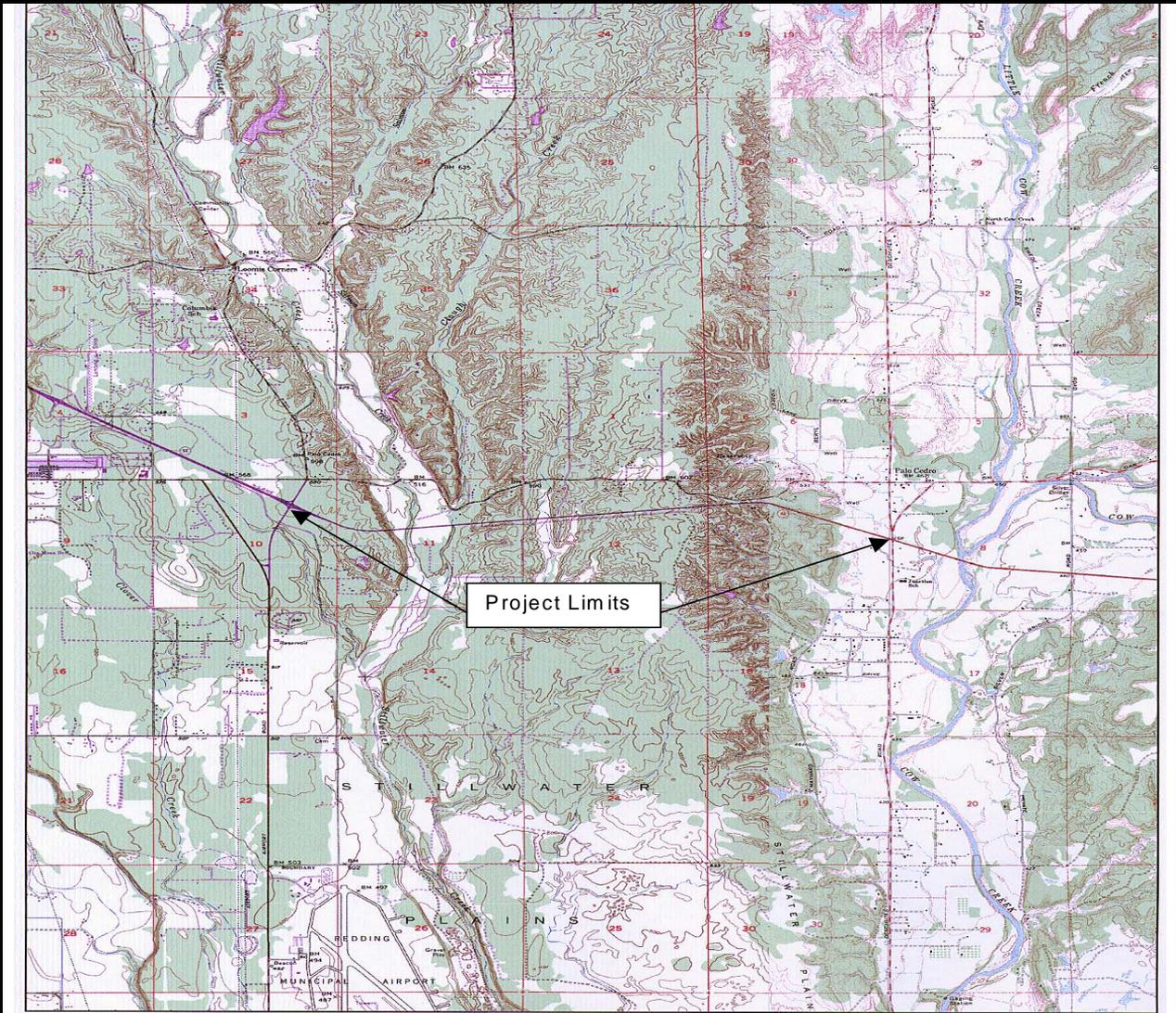


Exhibit 2 Project Location Map

	State of California Department of Transportation	Basemap: Enterprise, CA
	SHA 44-PM 3.6/7.0 Capacity & Operational Improvements 02-368400	

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

Exhibit 3 Levels of Service Defined

Exhibit 4 Preferred Alternative (J)

Exhibit 5 Alternatives Eliminated from Further Consideration

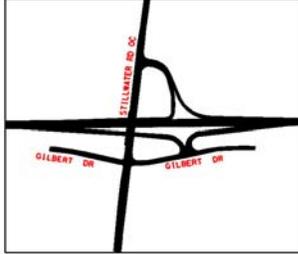
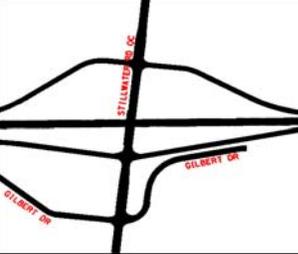
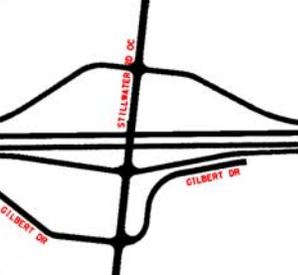
Alternative	Major Features	
<p style="text-align: center;">A</p>		<ul style="list-style-type: none"> ❖ Add new Stillwater Rd Overcrossing ❖ Modify Stillwater Rd intersection to right turn only ❖ Close Gilbert Dr access to Route 44 ❖ Add median barrier at Stillwater Rd intersection
<p style="text-align: center;">B1 & B2 *</p>		<ul style="list-style-type: none"> ❖ Add new Stillwater Road Overcrossing ❖ Improve Rte 44 to 4 lane freeway from Airport Rd to Deschutes Rd ❖ Extend Gilbert Dr East to Deschutes Rd ❖ Extend Gilbert Dr West to Airport Rd ❖ Close Gilbert Dr access to Rte 44
<p style="text-align: center;">C</p>		<ul style="list-style-type: none"> ❖ Convert Stillwater Rd intersection to diamond interchange ❖ New Stillwater Road Overcrossing ❖ Close Gilbert Dr access to Rte 44
<p style="text-align: center;">D</p>		<ul style="list-style-type: none"> ❖ Improve Rte 44 to 4 lane freeway from Airport Rd to Deschutes Rd ❖ Convert Stillwater Rd intersection to diamond interchange ❖ Add New Stillwater Rd Overcrossing ❖ Close Gilbert Dr access to Rte 44
<p style="text-align: center;">E</p>		<ul style="list-style-type: none"> ❖ Improve Rte 44 to 4 lane freeway from Airport Rd to Deschutes Rd ❖ Convert Stillwater Rd intersection to interchange with loop ramp at west bound on to Rte 44 and diamond configuration on other ramps ❖ New Stillwater Rd Overcrossing ❖ Close Gilbert Rd access to Rte 44

Exhibit 5 Alternatives Eliminated from Further Consideration

<p style="text-align: center;">F</p>	<p>The diagram shows a vertical road labeled 'STILLWATER RD OC' intersecting a horizontal road labeled 'RTE 44'. A road labeled 'GILBERT DR' branches off to the right from the intersection. Another road labeled 'GILBERT DR' branches off to the left from the intersection. The roads are shown with various line styles representing different types of crossings or alignments.</p>	<ul style="list-style-type: none"> ❖ Improve Rte 44 to 4 lane freeway from Airport Rd to Deschutes Rd ❖ Convert Stillwater Rd intersection to Type L-7 ❖ New Stillwater Rd Overcrossing ❖ Close Gilbert Rd access to Rte 44 ❖ Realign Gilbert Road at Stillwater
<p style="text-align: center;">G**</p>	<p>The diagram shows a vertical road labeled 'STILLWATER RD OC' intersecting a horizontal road labeled 'RTE 44'. A road labeled 'GILBERT DR' branches off to the right from the intersection. Another road labeled 'GILBERT DR' branches off to the left from the intersection. The roads are shown with various line styles representing different types of crossings or alignments.</p>	<ul style="list-style-type: none"> ❖ Add new Stillwater Road Overcrossing ❖ Improve Rte 44 to 4 lane freeway from Airport Rd to Deschutes Rd
<p style="text-align: center;">H</p>	<p>The diagram shows a vertical road labeled 'TER RD OC' intersecting a horizontal road labeled 'RTE 44'. A road labeled 'GILBERT DR' branches off to the right from the intersection. Another road labeled 'GILBERT DR' branches off to the left from the intersection. The roads are shown with various line styles representing different types of crossings or alignments.</p>	<ul style="list-style-type: none"> ❖ Improve Rte 44 to 4 lane freeway from Airport Rd to Deschutes Rd ❖ Extend Gilbert Dr East to Deschutes Rd. ❖ Extend Gilbert Dr West to Airport Rd Uses new connection to Deschutes Rd or Hillside Drive ❖ Close Gilbert Dr access to Rte 44
<p style="text-align: center;">I</p>	<p>The diagram shows a vertical road labeled 'STILLWATER RD OC' intersecting a horizontal road labeled 'RTE 44'. A road labeled 'GILBERT DR' branches off to the right from the intersection. Another road labeled 'GILBERT DR' branches off to the left from the intersection. The roads are shown with various line styles representing different types of crossings or alignments.</p>	<ul style="list-style-type: none"> ❖ Improve Rte 44 to 4 lane freeway from Airport Rd to Deschutes Rd ❖ Convert Stillwater Rd intersection to an interchange (to be selected later) ❖ Add New Stillwater Rd Overcrossing ❖ Add Overcrossing at Gilbert Dr

* The difference between the two alternatives is that B1 connects directly to Deschutes Road whereas alternative B2 connects to Deschutes Road via Hillside Drive. ** An overcrossing at Gilbert could be combined with Alternative G

Appendix A California Environmental Quality Act Evaluation

CEQA Environmental Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The CEQA impact levels include potentially significant impact, less than significant impact with mitigation, less than significant impact, and no impact. Please refer to the following for detailed discussions regarding impacts:

CEQA:

- Guidance: Title 14, Chapter 3, California Code of Regulations, Sections 15000 et seq. (http://www.ceres.ca.gov/topic/env_law/ceqa/guidelines/)
- Statutes: Division 13, California Public Resource Code, Sections 21000-21178.1 (http://www.ceres.ca.gov/topic/env_law/ceqa/stat/)

CEQA 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 “no impact” reflects this determination.

CEQA			
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 buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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"/>
b) Violate any air quality standard or contribute	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

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)?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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d) Expose sensitive receptors to substantial pollutant concentrations?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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e) Create objectionable odors affecting a substantial number of people?

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

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

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

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

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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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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CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

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"/>
b) Be inconsistent with a Coastal Zone Management Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Affect life-styles, 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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>
j) Support large commercial or residential development?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

CULTURAL RESOURCES - Would the project:

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

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

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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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"/>

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

- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

- 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?

- 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?

- 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?

- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

- 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?

HYDROLOGY AND WATER QUALITY - Would the project:

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

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

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

- d) Substantially alter the existing drainage pattern of the

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

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

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

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

j) 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, 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"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

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"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

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

NOISE - Would the project result in:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input 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 -

- 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

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

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 checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>
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"/>

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"/>
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"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

f) Result in inadequate parking capacity?

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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UTILITIES AND SERVICE SYSTEMS - Would the project:

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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, 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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CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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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
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086



*Flex your power!
Be energy efficient!*

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 Noise Receptor Map
