

Route 20/29 Intersection Safety Project

01-LAK-20 PM 8.1/8.6

01-48860

Initial Study with Proposed Mitigated Negative Declaration



Prepared by the
State of California Department of Transportation

January 2012



General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study/Proposed Negative Declaration, which examines the potential environmental impacts of alternatives being considered for the proposed project located in Lake County, California. The document describes why the project is being proposed, the existing environment that could be affected by the project, and the proposed avoidance, minimization, and/or mitigation measures.

What should you do?

- Please read this document. Additional copies of this document as well as the technical studies are available for review at the Caltrans District 3 Office of Environmental Support at 703 B St, Marysville, CA 95901 and at the Upper Lake Library at 310 Second Street Upper Lake California 95485 and can be accessed electronically at the following website: <http://www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm>
- We welcome your comments. If you have any concerns about the proposed project, please attend the public information meeting at the Upper Lake Middle School Gymnasium, 725 Old Lucerne Road, Upper Lake, CA on February 16th from 4:30 p.m. to 6:30 p.m., or send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

Sandra Rosas, Senior Environmental Planner
North Region Environmental Planning
California Department of Transportation
703 B Street Marysville, CA 95901

- Submit comments via email to: sandra_rosas@dot.ca.gov.
Submit comments by the deadline: March 1, 2012

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) conduct additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, large print, audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Sandra Rosas, North Region Environmental Planning, California Department of Transportation, 703 B Street, Marysville, CA 95901; (530) 741-4017 Voice, or use the California Relay Service TTY number, 1-800-735-2929.

SCH
01-LAK-PM 8.1-8.55
01-48860
EFIS 010000438

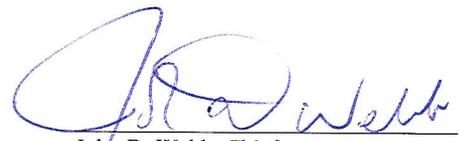
LAK 20/29 Intersection Safety Program
01-LAK-20/29 PM 8.10/8.55
01-48860

INITIAL STUDY
with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

27 January 2012
Date of Approval


John D. Webb, Chief
Office of Environmental Services
California Department of Transportation

Proposed, Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to construct a roundabout or signalize the intersection of State Routes 20 and 29. The purpose of this project is to reduce the frequency and severity of collisions at the intersection. The project is needed because the collision rate at the intersection is 3.7 times greater than the statewide average. The proposed improvements consist of two project alternatives.

Alternative 1 is a roundabout with a raised central island and three approaches.

Alternative 2 is a signalized intersection that will add a passing lane and crosswalk improvements.

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is the Department's intent to adopt a MND for this project. This does not mean that the Department's decision regarding the project is final. This MND is subject to modification based on comments received by the public and interested agencies.

The Department has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The proposed project would have minimal or no effect on aesthetics, air quality, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, utility and service systems.
- The proposed project would have a less than significant effect on cultural resources because avoidance and minimization measures have been included.
- The proposed project would have a less than significant impact on biological resources because avoidance, minimization and mitigation measures have been included.
- The proposed project would have a less than significant impact on agricultural resources because avoidance and minimization measures have been included.

John D. Webb, Chief
Office of Environmental Services
California Department of Transportation

Date

Table of Contents

Table of Contents	i
List of Figures	ii
List of Tables	ii
List of Abbreviated Terms.....	iii
Chapter 1 Proposed Project	1
1.1 Introduction.....	1
1.2 Purpose and Need	1
1.2.1 Purpose.....	1
1.2.2 Need	1
1.3 Alternatives	2
1.3.1 Build Alternatives	2
1.3.2 No-Build Alternative	5
1.3.3 Permits and Approvals Needed.....	5
Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures	6
2.1 Relocations and Real Property Acquisition	7
2.2 Farmlands.....	8
2.3 Cultural Resources	9
2.4 Biological Environment	14
2.4.1 Natural Communities	14
2.4.2 Wetlands and Other Waters	15
2.4.3 Threatened and Endangered Species.....	17
2.4.4 Plant Species	22
2.4.5 Animal Species	26
2.4.6 Invasive Species.....	32
2.5 Hazardous Waste.....	33
2.6 Water Quality.....	35
2.7 Climate Change.....	42
Chapter 3 List of Preparers.....	55
Appendix A California Environmental Quality Act Checklist.....	56
Appendix B Project Layout Sheets	65
Appendix C Minimization and/or Mitigation Summary	66
Appendix D Relocation Assistance Program	70
List of Technical Studies that are Bound Separately.....	76

List of Figures

Figure 1. Project Location Map	3
Figure 2. Project Vicinity Map.	4
Figure 3. California GREENHOUSE GAS FORECAST	47
Figure 4. Mobility Pyramid.....	49

List of Tables

Table 1: Impacts to Other Waters of the U. S. within the ESL, for each Project Alternative	17
Table 2: Valley Elderberry Longhorn Beetle/Elderberry Shrub Mitigation	21
Table 3 Plant Species	22
Table 4. Listed, proposed species, and critical habitat potentially occurring or known to occur in the project area.	27
Table 5: Invasive/Noxious Plant Species Found within the ESL	32
Table 6 Climate Change/CO2 Reduction Strategies	50

List of Abbreviated Terms

Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
FHWA	Federal Highway Administration
NEPA	National Environmental Policy Act
PM	Post Mile
SR	State Route
ESA	Environmental Sensitive Area
ADI	Area of Direct Impact
HPSR	Historical Properties Survey Report
HRER	Historical Resource Evaluation Report
USACE	United States Army Corp of Engineer
CVRWQCB	Central Valley Regional Water Quality Control Board
CDFG	California Department of Fish and Game
CESA	California Endangered Species Act
NOAA	National Oceanic and Atmospheric Administration
BA	Biological Assessment
FESA	Federally Endangered Species Act
CNPS	California Native Plant Species
Cal-IAC	California Invasive Plant Council
LID	Low Impact Development
BMP	Best Management Practices

Chapter 1 **Proposed Project**

1.1 Introduction

The California Department of Transportation proposes to construct a roundabout or signalize the intersection at State Routes (SR) 20 and 29 (Figure 1, Figure 2). The purpose of this project is to reduce the frequency and severity of collisions at the intersection. The project is needed because the collision rate at the intersection is 3.7 times greater than the statewide average. The proposed improvements consist of two project alternatives (Appendix B).

Alternative 1 is a roundabout with a raised central island that has a mounded height of six feet. The roundabout will have three legs. SR 20 will enter from the east and from the west while SR 29 will enter from the south. This alternative will replace existing lighting, install sidewalks and crosswalks, and improve drainage.

Alternative 2 proposes to install signal lights at the intersection. The intersection will be widened to create room for a passing lane and additional turn lanes. Sidewalks will be installed as well as crosswalks across SR 29 and across SR 20 on the east side of the intersection. There are four existing culverts that will be impacted by this alternative.

The contractor will be responsible for removal of any excavated material and dispose of it at an approved site. Staging for the project is expected to be within the proposed environmental study limit.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of this project is to reduce the frequency and severity of collisions at the intersection.

1.2.2 Need

The project is needed because the collision rate at the intersection is 3.7 times greater than the statewide average.

1.3 Alternatives

1.3.1 Build Alternatives

Alternative 1 is a roundabout with a raised central island that has a mounded height of six feet. The roundabout will have three legs. SR 20 will enter from the east and from the west while SR 29 will enter from the south. This alternative will replace existing lighting, install sidewalks, crosswalks and improve drainages. Culverts will also be impacted by this alternative. A culvert at post mile 8.33 will need to be relocated, while the culverts at post mile 8.48 on SR 20 and at post mile 52.4 on SR 29 will need to be extended.

Alternative 2 proposes to install signal lights at the intersection. The intersection would be widened to create room for a passing lane and additional turn lanes. Sidewalks would be installed as well as crosswalks across SR 29 and across SR 20 on the east side of the intersection. There are four existing culverts that will be impacted by this alternative. Three Culverts on SR 20 at post mile 8.18, 8.33 and 8.48 will likely be extended and one culvert at on SR 29 at post mile 52.4 may also need to be extended.

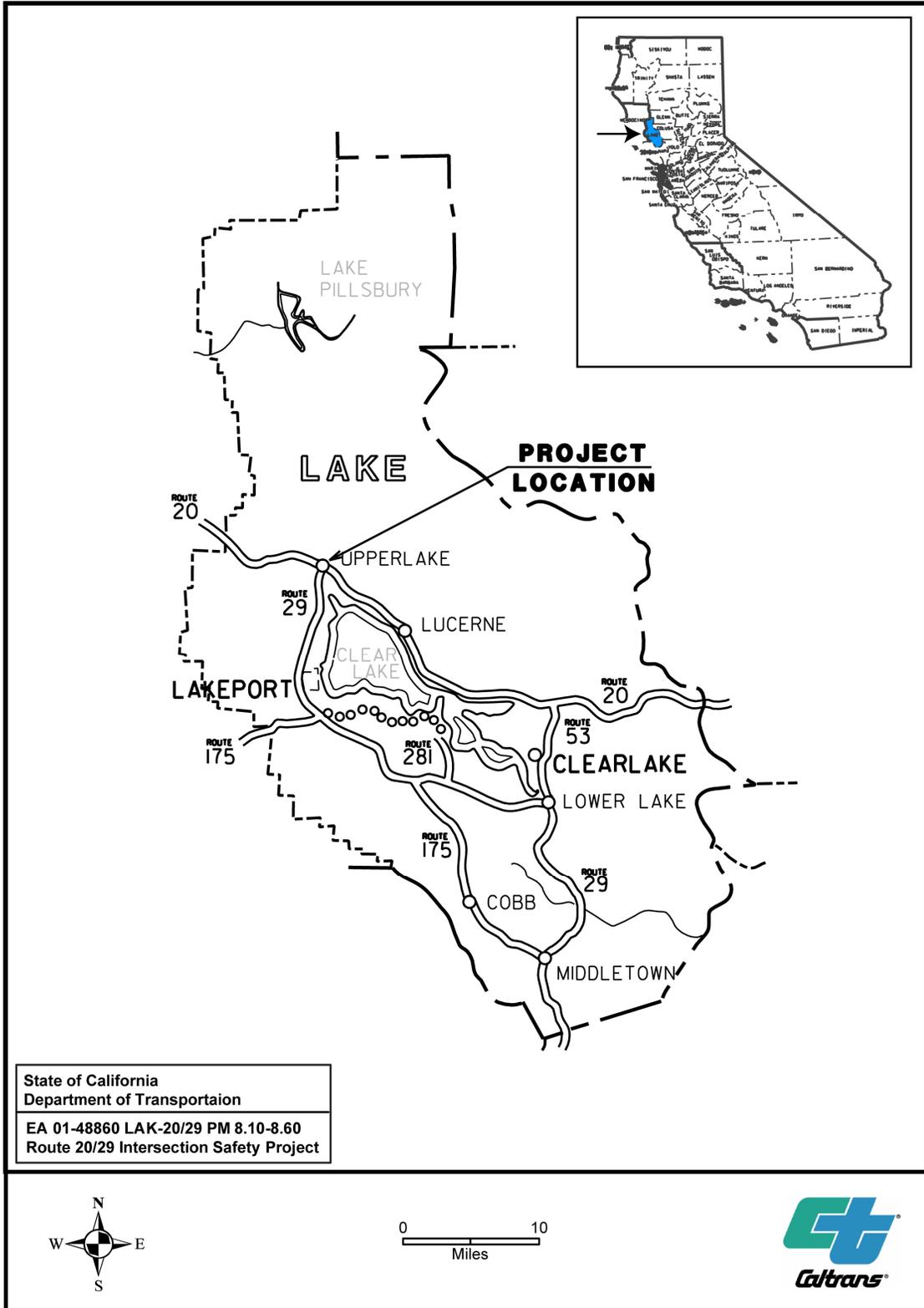


Figure 1. Project Location Map

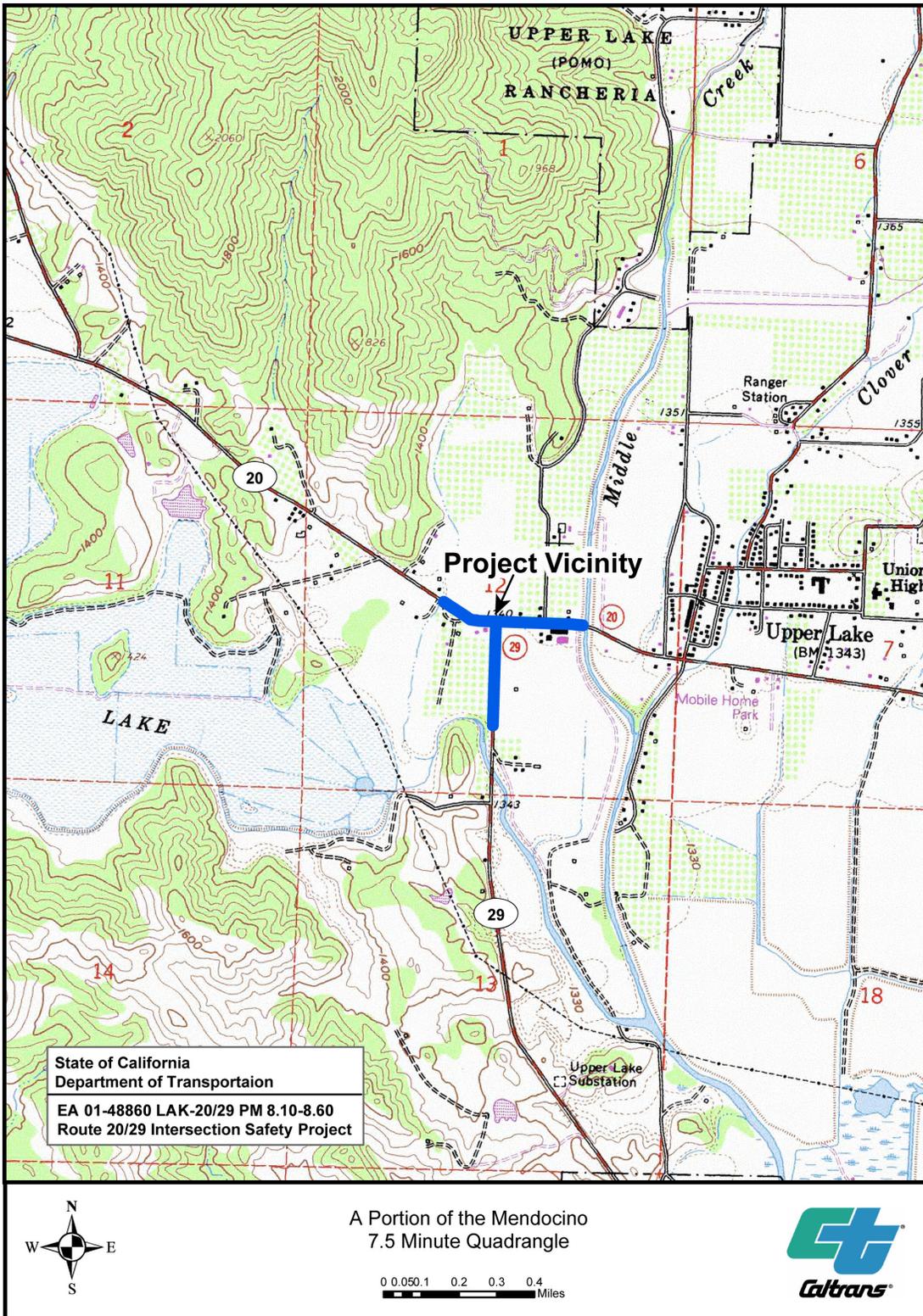


Figure 2. Project Vicinity Map.

1.3.2 No-Build Alternative

The No-Build Alternative would make no changes to existing site conditions and would not fulfill the projects purpose and need. The intersection would still have a collision rate that is 3.7 times greater than the statewide average.

1.3.3 Permits and Approvals Needed

The project proposes work in areas that fall under the jurisdiction of the U. S. Army Corps of Engineers, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game. The following permits and approvals would be required for project construction:

Agency	Permit/Approval	Status
United States Army Corps of Engineers	404 Nationwide	permit application in progress
Central Valley Regional Water Quality Control Board	401 Water Quality Certification	permit application in progress
California Department of Fish and Game	1602 Streambed Alteration Agreement	permit application in progress

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

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

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

- **Timberlands/Williamson Act Land**—No timberland or Williamson Act contract land will be affected by this project (Field visit, October 11, 2011).
- **Utilities/Emergency Services**—Two utilities will be relocated by the project. These utilities are Pacific Gas & Electric (PG&E) and American Telephone and Telegraph (AT&T). Relocations will take place within the right-of-way. Emergency Services will not be impacted by the project.
- **Hydrology and Floodplain**—The small amount of additional sliver fill resulting from the extended project limits is insignificant as compared to the total floodplain area, and will not adversely affect the Base Floodplain Elevation (BFE) (Floodplain Evaluation March 15, 2011).
- **Noise**—This project is not a type I project as defined by Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Project. No noise analysis is required (Environmental Document Assessment Report-Noise 1/12/2011).
- **Air Quality**—This project is exempt from all air quality conformity analysis requirements (Air Quality Evaluation 1/13/2011).
- **Visual Impact Assessment**— This proposed project will not degrade the visual quality of the intersection. A new left turn lane and shoulder will improve the intersection, but the necessary tree and shrub removals will reduce the existing visual screen. In total, the project will not result in a visual degradation (Visual Impact Assessment 10/11/2011).

- Landuse and Community Impacts— The project will not affect landuse and the community within the project area (Field visit, October 11, 2011 and 3/3/2011).Human Environment

2.1 Relocations and Real Property Acquisition

Regulatory Setting

Caltrans' Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix D for a summary of the RAP. All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 USC 2000d, et seq.). Please see Appendix E for a copy of the Department's Title VI Policy Statement.

Affected Environment

The SR 20/29 Intersection Project is located to the west of the town of Upper Lake. Much of the land surrounding the ESL is developed. Zoning for the project area consists of agriculture and industrial. Orchards are located on both side of SR 29 and the north side of SR 20. A newly constructed gas station/fast food restaurant is located on the southeast corner of the SR 20/29 intersection. On the southwest side of the intersection a feed store, will be relocated if Alternate 1 is built. Several rural residences are located along SR 20 along the northeast and west sides of the intersection. These rural residences will have the front portions of their driveways tapered to match the refinished road. The project area has seen significant historical use. On the east end of the project, foundations of an old cannery still exist.

Environmental Consequences

A field review of the proposed project was conducted, March 30, 2009 to determine the potential impact on the residential and nonresidential units. There is one commercial property that will need to be acquired for Alternative 1(roundabout), requiring relocation to another site. The commercial property owners qualify for relocation assistance. The Caltrans would help the property owners find a suitable place to relocate and help in the move and setup of the relocated business.

Avoidance, Minimization, and/or Mitigation Measures

It has been determined there is no significant impact to owners, tenants, businesses or persons in possession of real property to be acquired who would qualify for relocation assistance benefits or entitlements under the Uniform Relocation Assistance and Real Property Act of 1970. If Alternative 1 is selected, the feed store will be relocated.

2.2 Farmlands

Regulatory Setting

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

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

Affected Environment

The SR 20/29 Intersection Project is located to the west of the town of Upper Lake. Much of the land surrounding the ESL is developed. Zoning for the project area consists of agriculture and industrial lands. Agricultural lands are located on both sides of SR 29 and the north side of SR 20. The orchards on the north side of SR 20 are considered prime agricultural land. In Lake County there are 13,635 acres of prime agricultural land. Williamson Act lands are not located within the project area.

Environmental Consequences

A field review of the proposed project was conducted, March 30, 2009 to determine the potential impact on farmlands. The Lake County General Plan states that there are 13, 635 acres of prime agricultural land in Lake County. There are two project alternatives. Alternative 1 proposes to construct a roundabout. This alternative will impact 0.10 of an acre, (4,437 square feet) of prime agricultural land. Considering there are 13,635 acres of prime agricultural land in Lake County this impact equals 0.0007% of total prime agricultural

lands. Alternative 2 proposes to signalize the intersection. This alternative will impact 0.69 of an acre, (30,342 square feet) of prime agricultural land. With a total of 13,635 acres of prime agricultural land in Lake County, this impact equals 0.005% of total prime agricultural lands.

Farmland Conversion by Alternative		
Alternatives	Prime Land Converted (acres)	Percent of Prime Farmland in County affected by project
1	0.10	0.0007%
2	0.69	0.005%

Avoidance, Minimization, and/or Mitigation Measures

Overall, the project will not significantly affect prime farmland, unique farmland, or farmland of statewide importance. The project has incorporated avoidance and minimizations measures to lessen agricultural impacts.

2.3 Cultural Resources

Regulatory Setting

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

The National Historic Preservation Act of 1966, as amended, (NHPA) sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and Caltrans went into effect for projects, both state and local, with FHWA involvement. The PA implements the Advisory Council’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA’s responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Pilot Program (23 CFR 327) (July 1, 2007).

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

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

Affected Environment

A cultural resources study identified two archaeological sites (CA-LAK-825/H and -2197H) in the survey area. The study included an intensive pedestrian survey that Caltrans archaeologists conducted on six separate days between April and July 2011. The survey area extends along SR 20 from P.M. 8.10-8.60 and along SR 29 from P.M. 52.20-52.54. The survey area includes an Environmental Study Limit (ESL) that Caltrans initially defined to encompass potential effects of both alternatives. The proposed project and ESL were subsequently reduced to avoid any potential effects to specific archaeological and biological resources. Surveyors were not able to gain access to one parcel (APN 003-034-054) that is on the southwestern side of the intersection and would be affected by either build alternative. As discussed below, this parcel does not appear to be sensitive and it is unlikely that a pedestrian survey would identify any archaeological resources within this parcel.

It is Caltrans policy to avoid impacts to cultural resources whenever possible. It is possible that unidentified subsurface archaeological remains exist within the right-of-way and could be encountered during ground-disturbing activities. If buried cultural materials are encountered during construction, it is Caltrans policy that work in the immediate vicinity of the find halt until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the project changes to include unsurveyed areas.

Caltrans staff initiated background research by consulting LandVision’s on-line database, which is based on County Assessor's records and provides information regarding current owners and building construction dates. Local histories, especially *Brief History of Lake County* by Marion Geoble and “In Lake County: Two Major Improvement Projects are

Under Way” by W.R. Lovering, provided much of the information contained in the Historical Overview section of this report. Staff conducted additional research at the California State Library in Sacramento, the Caltrans Transportation Library and History Center in Sacramento, and the Sacramento County Public Library to obtain historical background information on Lake County and the general project area.

As a matter of course, staff also consulted the following lists:

- National Register of Historic Places, 1990 and updates
- California Register of Historical Resources, 1997 and updates
- California Inventory of Historic Resources, 1976 and updates
- California Historical Landmarks, 1990 and updates
- California Points of Historical Interest, 1992 and updates

Environmental Consequences

This archival research did not reveal any properties within the APE listed on the following National Register of Historic Places or the California Register of Historical Resources, as State Historical Landmarks, Points of Historical Interest, or local listings. All resources were studied with reference to the historical themes established by the historical research and within the context of extant resources in the area.

Cultural Resources Studies

- Archaeological Survey Report (ASR): *Archaeological Survey Report for the Proposed State Route 20/29 Intersection Improvement Project, Lake County, California, 01-LAK-20, K.P. 13.04-13.84/P.M. 8.10-8.60, EA 01-488600*, by Jeff Haney, August 2011.
- Historic Resources Evaluation Report (HRER): *Historic Resources Evaluation Report for the Proposed State Route 20/29 Intersection Improvement Project, Lake County, California, 01-LAK-20, K.P. 13.04-13.84/P.M. 8.10-8.60, EA 01-488600*, by Joan Fine, August 2011.
- Historic Properties Survey Report (HPSR): *Historic Properties Report by Jeff Haney, August 2011.*
- Finding of Effect Letter: *by Jeff Haney, August 2011.*
- ESA Action Plan: *by Jeff Haney, August 2011.*

Historical Archaeology

Further archival research was conducted to develop the site history, larger historic context, and research topics relevant to the identified archaeological site. Research focused primarily on historical mapping and written histories of the project area. Research was carried out at the following locations:

- Caltrans Division of Environmental Analysis Library—Sacramento
- Caltrans Transportation Library—Sacramento
- California State Library, California Room—Sacramento
- Lakeport Historic Courthouse Museum—Lakeport (Including the Henry K. Mauldin history files)
- Lake County Recorder/Assessor’s Office—Lakeport
- Newspaperarchive.com—online

As assigned by FHWA, Caltrans has determined the following properties within the Project APE are not eligible for inclusion in the National Register of Historic Places:

1125 West Highway 20 (APN 003-034-054). This property contains a one story commercial building with a flat, composite roof and wood vertical siding, Records at the Lake County assessor’s office indicate that the building was constructed prior to 1961. The building has a standard, vernacular design and is made of commonly used building materials. Fenestration on the primary (north) façade consists of two ribbon (sliding) widows that flank a double door entry. Fenestration on the east and west façades also consists of sliding windows. The eastern side of the building has a single bay door and a door between the building and a detached carport. The southern façade has two smaller fixed sliding windows.

This building has no distinguishing architectural characteristics and is not associated with any events or persons important in local, state, or national history (Criteria A and B). It does not possess high artistic values, nor is it an outstanding example of its type, period, or method of construction (Criterion C).

As assigned by FHWA, Caltrans has determined that the following archaeological site within the Project APE shall be considered eligible for inclusion in the National Register without conducting subsurface testing or surface collection within the Area of Potential Effects (APE), for which the establishment of an Environmentally Sensitive Area (ESA) will protect the site from any potential effects, in accordance with Section 106 PA Stipulation VIII.C. See attached documentation.

CA-LAK-2197H (P-17-002560). The site has few artifacts visible on the surface. The cannery, which operated from 1897 to 1967, was demolished in the 1970s or 1980s. Remains of the cannery consist of a concrete foundation and at least one standing building that once served as a cheese factory. In addition, a large corrugated iron building and a cinderblock residence, which were constructed between 1958 and 1975, are within the site boundary and may be related to the later operation of the cannery. Sanborn Fire Insurance maps from 1911 and 1929 and Caltrans as-built plans dated March 20, 1922 show another building to the west of the cannery in the vicinity of the current driveway. This building is alternatively labeled on these maps as a cheese factory, a garage, and a residence. No evidence of this former building exists today. The 1911 Sanborn Fire Insurance map also shows a large privy south of the cannery.

The Clear Lake Cannery had a long history of canning string beans and other crops from Lake County. It is likely also the longest operating cannery in the county and one of the earliest bean canneries in California. Adolphus Mendenhall, one of the bean canning pioneers in the county, was very important locally. Mendenhall's first wife, Lottie, gave land to Upper Lake for construction of the Carnegie library. The Mendenhall family still resides in the area.

Avoidance, Minimization, and/or Mitigation Measures

The proposed project would remove the northern portion of the concrete cannery foundation in conjunction with either alternative. Both alternatives would entail similar ground disturbing activities during construction. For the purposes of this project the Clear Lake Cannery site is considered eligible for the NRHP under Stipulation VIII.C (3) of the PA. The concrete slab foundation, however, does not contain important information under Criterion D and is not a contributing element. An ESA will be established around the portion of CA-LAK-2197H outside of the Area of Direct Impact (ADI) to protect this portion of the site from inadvertent damage during project construction. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent

(MLD). At this time, the person who discovered the remains will contact Sandra Rosas, District Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

2.4 Biological Environment

2.4.1 Natural Communities

Regulatory Setting

Under Section 404 of the Clean Water Act, waters of the U. S. include the following: territorial seas, coastal and inland waters, lakes, rivers and streams that are navigable and their adjacent wetlands, tributaries to navigable waters and their adjacent wetlands, interstate waters and their tributaries including adjacent wetlands, and all other waters of the U. S. (intermittent streams and prairie potholes). Waters of the U. S. is the encompassing term for areas under federal jurisdiction as defined in Section 404 of the Clean Water Act.

Affected Environment

The SR 20/29 Intersection Project is located to the west of the town of Upper Lake. Much of the land surrounding the ESL is developed. Walnut and apple orchards are located adjacent to most of the ESL. A newly constructed gas station/fast food restaurant is located on the southeast corner of the SR 20/29 intersection, and a building is located on the southwest corner of the intersection. Several rural residences are located along SR 20 adjacent to the ESL.

Environmental Consequences

Plant species observed within the ESL are listed in Table 3. The plant community within the ESL is Valley Oak Series, as described in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995). Valley oak is the sole or dominant tree in the canopy of the Valley Oak Series. Black oak, blue oak, California sycamore, coast live oak, and/or Oregon ash may be present in the Valley Oak Series.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be incorporated into the project to minimize impacts to wetlands and other waters of the U. S. during construction:

- Work within other waters of the U. S. would be restricted to the dry/low flow season (April 15 and October 15) of any construction season.

- Other waters of the U. S. that are temporarily impacted during construction would be restored to pre-project conditions following the completion of construction.
- Standard water quality Best Management Practices (BMPs) would be implemented to minimize erosion into waterbodies present within the ESL.
- Spills of hazardous materials would be prevented.
- Prior to onset of construction, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared. The SWPPP would prescribe BMPs, appropriate to each culvert, in keeping with the BMPs described in Caltrans' Water Quality Handbook.

2.4.2 Wetlands and Other Waters

Regulatory Setting

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

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

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

Environmentally Damaging Practicable Alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

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 (FHWA) and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game (CDFG), the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

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

Affected Environment

Various drainage ditches are present within the proposed project's ESL, both parallel and perpendicular to SR 20 and 29. A total of 0.431 acres of other waters of the U. S. are present within the ESL.

Environmental Consequences

Construction of the proposed project would have permanent and temporary impacts to other waters of the U. S. Table 1 lists the permanent and temporary impacts to other waters of the U. S. under each of the alternatives being considered for this project.

Table 1: Impacts to Other Waters of the U. S. within the ESL, for each Project Alternative

Alternative	Permanent Impacts (acres)	Temporary Impacts (acres)
Alternative 1 (Roundabout)	0.071	0.014
Alternative 2 (Signalization)	0.008	0.027

Avoidance, Minimization, and/or Mitigation Measures

Proposed mitigation to offset unavoidable impacts to other waters of the U. S. may include, but is not limited to, the following: onsite creation of other waters of the U.S.; onsite vegetated buffers; onsite and offsite restoration; revegetation and enhancement; and the purchase of credits at an approved mitigation bank, if available. Mitigation to offset impacts to other waters of the U. S. would be subject to the review and approval of USACE, CVRWQCB, and CDFG.

The following measures would be incorporated into the project to minimize impacts to wetlands and other waters of the U. S. during construction:

- Work within other waters of the U. S. would be restricted to the dry/low flow season (April 15 and October 15) of any construction season.
- Other waters of the U. S. that are temporarily impacted during construction would be restored to pre-project conditions following the completion of construction.
- Standard water quality Best Management Practices (BMPs) would be implemented to minimize erosion into waterbodies present within the ESL.
- Spills of hazardous materials would be prevented.
- Prior to onset of construction, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared. The SWPPP would prescribe BMPs, appropriate to each culvert, in keeping with the BMPs described in Caltrans’ Water Quality Handbook.

2.4.3 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 USC Section 1531, et seq. See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify

designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an Incidental Take statement. Section 3 of FESA defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The California Department of Fish and Game (CDFG) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFG. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code. Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Affected Environment

The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is listed as a federally threatened species. The range of the valley elderberry longhorn beetle extends the length of the Central Valley of California, from Redding south to Bakersfield. The valley elderberry longhorn beetle has also been recorded from the western foothills of the Sierra Nevada and the eastern foothills of the Inner Coast Ranges. Significant concentrations of the valley elderberry longhorn beetle are found along the American River in Sacramento and Putah Creek in Solano County. Valley elderberry longhorn beetles occur up to an elevation of 3,000 feet, and are found primarily in streamside, riparian habitats. The valley elderberry longhorn beetle is dependent on its host plant, the elderberry shrub (*Sambucus* sp.). Valley

elderberry longhorn beetles spend most of their life cycle in the larval stage, living within the stems of the elderberry shrub. Adult valley elderberry longhorn beetles emerge from elderberry shrub stems in late March through June.

Environmental Consequences

One elderberry shrub is growing within the proposed project's ESL. This shrub is growing in an upland setting, between an orchard and the highway. No valley elderberry longhorn beetles or exit holes were seen during surveys.

Pursuant to Section 7 of the Federal Endangered Species Act, Caltrans would enter into formal consultation with USFWS after a project alternative has been chosen. A Biological Assessment (BA) will be submitted to USFWS. A Non-Jeopardy Determination must be issued by USFWS in order for Caltrans to proceed with project construction. Mitigation measures are subject to the review and approval of USFWS. Caltrans would comply with any new or modified mitigation measures developed during the consultation process.

Avoidance, Minimization, and/or Mitigation Measures

Alternative 1 (Roundabout)

The elderberry shrub is located over 50 feet from project activities under Alternative 1. Alternative 1 would not affect the valley elderberry longhorn beetle or its habitat.

Alternative 2 (Signalization)

Under Alternative 2, project activities would occur adjacent to the elderberry shrub. Pursuant to Section 7 of the Federal Endangered Species Act, Caltrans, in conjunction with FHWA, would enter into formal consultation with USFWS. The avoidance measures discussed below are subject to the review and approval of the USFWS. Caltrans would comply with any new or modified mitigation measures developed during the consultation process.

To protect the elderberry shrub during construction, the standard avoidance and minimization measures outlined in the USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* and the 1997 *Formal Programmatic Consultation Permitting Projects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office, California* (File # 1-1-96-F-156 – March 1997) between the USFWS and FHWA would be followed. The USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* defines a buffer area as the area within 100 feet of the dripline of any elderberry shrub. A core avoidance area is defined as the area within 20 feet of the dripline of any elderberry shrub. In areas that are within 100 feet of any elderberry shrub, construction-related disturbance would be minimized, and any areas that are impacted would

be restored upon completion of construction. Protective measures would be implemented within all elderberry shrub buffer areas and would include:

1. The elderberry shrub would be shown on construction plans as an “Environmentally Sensitive Areas (ESA).” To protect this area, the contractor would be required to install temporary fencing before any other work begins to protect the shrubs against inadvertent impacts that could be caused by construction activities. Project activities would occur within 20 feet of the elderberry shrub, therefore ESA fencing would be installed as far away from the shrub as possible. If any section of the fence is damaged, the fence would be repaired by construction personnel or other authorized persons within one working day of discovery.
2. Contractors would be educated about the importance of not touching or damaging the elderberry shrubs, and what the consequences of doing so are.
3. Signs would be placed every 50 feet along the edge of the ESA stating: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.” These signs would be readable from 20 feet away. The signs would be maintained during the entire duration of construction.
4. Contractors and workers would be informed about the status of the valley elderberry longhorn beetle and the need to protect its host plant, the elderberry shrub, prior to construction. This would take place at a pre-construction meeting between Caltrans and the contractor.
5. Any impacts to buffer areas would be restored after construction is complete. The affected areas would be revegetated with native plants appropriate for the project location.
6. Caltrans’ Best Management Practices would be in place during construction and would serve to minimize soil erosion and airborne dust.

Compensatory Mitigation

If Alternative 2 is chosen Caltrans would enter into formal consultation with the U. S. Fish and Wildlife Service, pursuant to Section 7 of the Federal Endangered Species Act. Any additional mitigation measures developed during the consultation process would be incorporated into the project.

This project meets the criteria set forth in *Formal Programmatic Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office, California* (File # 1-1-96-F-156 – March 1997) between the U. S. Fish and Wildlife Service and FHWA. Caltrans would request that this project be appended to the Formal Programmatic Consultation for impacts to the valley elderberry longhorn beetle.

A total of 1 elderberry shrub stem would be impacted by this project. Based on ratios from the USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*, 3 elderberry shrub seedlings and 3 associate native species would need to be planted to compensate for direct and indirect impacts to habitat for the valley elderberry longhorn beetle. Proposed mitigation to offset impacts to valley elderberry longhorn beetle habitat may include, but is not limited to, the purchase of 1 valley elderberry longhorn beetle mitigation credit from the Center for Natural Lands Management Valley Elderberry Longhorn Beetle Conservation Fund or from an approved mitigation bank. Table 2 outlines the valley elderberry longhorn beetle mitigation needed for this project.

Table 2: Valley Elderberry Longhorn Beetle/Elderberry Shrub Mitigation

Stem location and size (diameter at ground level)	# stems impacted	Ratio for elderberry shrub plantings	Elderberry shrub plantings needed	Ratio for associate native plantings	Associate native plantings needed
Non-riparian –5”+	1	3:1	3	1:1	3
3/5 = 0.6 = 1 mitigation credit					

2.4.4 Plant Species

Regulatory Setting

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

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

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), Public Resources Code, Sections 2100-21177.

Affected Environment

Table 3 Plant Species

Scientific Name	Common Name	Status	Habitat	Blooming Period	Habitat Present/Absent	Rationale
		Federal/State/CN PS				
PLANTS						
<i>Amsinckia lunaris</i>	Bent-flowered fiddleneck	None/None/List 1B.2	Coastal bluff scrub, cismontane woodland, valley and foothill grassland.	March-June	Present	Species not observed during surveys.

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

<i>Arctostaphylos canescens</i> ssp. <i>sonomensis</i>	Sonoma canescens manzanita	None/None/List 1B.2	Chaparral, lower montane coniferous forest/sometimes serpentinite.	January-June	Absent	Suitable habitat not present within ESL.
<i>Arctostaphylos manzanita</i> ssp. <i>elegans</i>	Konocti manzanita	None/None/List 1B.3	Chaparral, cismontane woodland, lower montane coniferous forest/volcanic.	March-May	Absent	Suitable habitat not present within ESL.
<i>Arctostaphylos stanfordiana</i> ssp. <i>raichei</i>	Raiche's manzanita	None/None/List 1B.1	Chaparral, lower montane coniferous forest (openings)/rocky, often serpentinite.	February-April	Absent	Suitable habitat not present within ESL.
<i>Brasenia schreberi</i>	Watershield	None/None/List 2.3	Marshes and swamps/fresh water.	June-September	Absent	Suitable habitat not present within ESL.
<i>Calycadenia micrantha</i>	Small-flowered calycadenia	None/None/List 1B.2	Chaparral, meadows and seeps (volcanic), valley and foothill grassland/roadsides, rocky, talus, scree, sometimes serpentinite, sparsely vegetated areas.	June-September	Present	Species not observed during surveys.
<i>Carex comosa</i>	Bristly sedge	None/None/List 2.1	Coastal prairie, marshes and swamps (lake margins), valley and foothill grassland.	May-September	Present	Species not observed during surveys.
<i>Ceanothus confusus</i>	Rincon Ridge ceanothus	None/None/List 1B.1	Closed-cone coniferous forest, chaparral, cismontane	February-June	Absent	Suitable habitat not present within

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

			woodland/volcanic or serpentinite.			ESL.
<i>Cryptantha dissita</i>	Serpentine cryptantha	None/None/List 1B.1	Chaparral (serpentinite).	April-June	Absent	Suitable habitat not present within ESL.
<i>Didymodon norrisii</i>	Norris' beard moss	None/None/List 2.2	Cismontane woodland, lower montane coniferous forest/intermittently mesic, rock.		Absent	Suitable habitat not present within ESL.
<i>Entosthodon kochii</i>	Koch's cord moss	None/None/List 1B.3	Cismontane woodland (soil).		Absent	Suitable habitat not present within ESL.
<i>Hesperolinon adenophyllum</i>	Glandular western flax	None/None/List 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/usually serpentinite.	May-August	Present	Species not observed during surveys.
<i>Hesperolinon bicarpellatum</i>	Two-carpellate western flax	None/None/List 1B.2	Chaparral (serpentinite).	May-July	Absent	Suitable habitat not present within ESL.
<i>Horkelia bolanderi</i>	Bolander's horkelia	None/None/List 1B.2	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland/edges, vernal mesic areas.	June-August	Present	Species not observed during surveys.
<i>Kopsiopsis hookeri</i>	Small groundcone	None/None/List 2.3	North Coast coniferous forest.	April-August	Absent	Suitable habitat not present within ESL.
<i>Layia septentrionalis</i>	Colusa layia	None/None/List 1B.2	Chaparral, cismontane woodland,	April-May	Present	Species not observed

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

			valley and foothill grassland/sandy, serpentinite.			during surveys.
<i>Lupinus antoninus</i>	Anthony Peak lupine	None/None/List 1B.3	Lower montane coniferous forest, upper montane coniferous forest/rocky.	May-July	Absent	Suitable habitat not present within ESL.
<i>Plagiobothrys lithocaryus</i>	Mayacamas popcorn-flower	None/None/List 1A	Chaparral, cismontane woodland, valley and foothill grassland/mesic.	April-May	Present	Species not observed during surveys.
<i>Streptanthus hesperidis</i>	Green jewel-flower	None/None/List 1B.2	Chaparral (openings), cismontane woodland/serpentinite, rocky.	May-July	Absent	Suitable habitat not present within ESL.
<i>Tracyina rostrata</i>	Beaked tracyina	None/None/List 1B.2	Cismontane woodland, valley and foothill grassland.	May-June	Present	Species not observed during surveys.
<i>Viburnum ellipticum</i>	Oval-leaved viburnum	None/None/List 2.3	Chaparral, cismontane woodland, lower montane coniferous forest.	May-June	Absent	Suitable habitat not present within ESL.
SENSITIVE HABITATS						
Clear Lake Drainage Cyprinid/Catostomid Stream		None/None/None			Absent	Suitable habitat not present within ESL.
Clear Lake Drainage Seasonal Lakefish Spawning Stream		None/None/None			Absent	Suitable habitat not present within ESL.
Coastal and Valley Freshwater Marsh		None/None/None			Absent	Suitable habitat not present within ESL.

Northern Interior Cypress Forest	None/None/None			Absent	Suitable habitat not present within ESL.
Serpentine Bunchgrass	None/None/None			Absent	Suitable habitat not present within ESL.

¹Status Explanations:

State Status (pursuant to §1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code)

- E = endangered. Listed as endangered under the California Endangered Species Act.
- T = threatened. Listed as threatened under the California Endangered Species Act.
- None = no listing.

California Native Plant Society (CNPS)

- List 1A species. Presumed extinct in California.
- List 1B species. Plants rare, threatened, or endangered in California and elsewhere.
- List 2 species. Rare, threatened, or endangered in California, but more common elsewhere.
- List 3 species. More information is needed about the plant species.
 - .1 = seriously endangered in California.
 - .2 = fairly endangered in California.
 - .3 = Not very endangered in California.

Environmental Consequences

Prior to conducting botanical surveys, a list of sensitive plant species and habitats potentially occurring in the project vicinity was developed from reviewing the USFWS online species list database, the California Department of Fish and Game CNDDDB, and the CNPS Inventory of Rare and Endangered Vascular Plants for the Cow Mountain, Upper Lake, Bartlett Mountain, Purdys Gardens, Lakeport, and Lucerne 7.5-minute USGS quadrangles. The CNDDDB and CNPS inventory were also queried for sensitive plants in Lake County. Additional resources queried included botanical survey information from other Caltrans projects located in Lake County.

Avoidance, Minimization, and/or Mitigation Measures

The project will not result in impacts on sensitive plant species.

2.4.5 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The US Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service) and the California Department of Fish and

Game (CDFG) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Table 4. All other special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations pertaining to wildlife include the following:

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

State laws and regulations pertaining to wildlife include the following:

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

Affected Environment

Table 4. Listed, proposed species, and critical habitat potentially occurring or known to occur in the project area.

Scientific Name	Common Name	Status	Habitat	Habitat Present/Absent	Rationale
		Federal/State			
AMPHIBIANS					
<i>Rana boylei</i>	Foothill yellow-legged frog	None/SC	Creeks or rivers in woodlands or forests with rock and gravel substrate and low overhanging vegetation along the edge.	Absent	Suitable habitat not present within Environmental Study Limits (ESL).
<i>Rana draytonii</i>	California red-legged frog	T/SC	Permanent and semi-permanent aquatic habitats such as creeks and cold water ponds, with emergent and submergent vegetation.	Absent	Suitable habitat not present within ESL.
BIRDS					
<i>Agelaius tricolor</i>	Tricolored blackbird	None/SC	Nests in emergent wetland vegetation such as tules or cattails,	Present	Species not observed during

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

			or at upland sites with blackberry shrubs, nettles, and thistles.		surveys.
<i>Ammodramus savannarum</i>	Grasshopper sparrow	None/SC	Dry grasslands with scattered shrubs for song perches.	Present	Species not observed during surveys.
<i>Ardea herodias</i>	Great blue heron	None/None	Nests in colonies in mature trees. Forages in a variety of habitats including agriculture fields and wetlands.	Present	Species not observed during surveys.
<i>Pandion haliaetus</i>	Osprey	None/None	Nests in snags, trees, or utility poles near the ocean, large lakes, or rivers with abundant fish populations.	Absent	Suitable habitat not present within ESL.
<i>Phalacrocorax auritus</i>	Double-crested cormorant	None/None	Rocky coastlines, beaches, inland ponds, and lakes; needs open water for foraging, and nests in riparian forests or on protected islands, usually in snags.	Absent	Suitable habitat not present within ESL.
<i>Strix occidentalis</i>	Northern spotted owl	T/SC	Dense old-growth or mature forests dominated by conifers with topped trees or oaks available for nesting crevices.	Absent	Suitable habitat not present within ESL.
FISH					
<i>Archoplites interruptus</i>	Sacramento perch	None/SC	In weedy ponds and lakes such as Lake Anza, Jewel Lake, and an unnamed private pond near Sonoma Mountain Road, Sonoma Co.	Absent	Suitable habitat not present within ESL.
<i>Hypomesus transpacificus</i>	Delta smelt	T/T	Generally found in euryhaline zone, moving to freshwater to spawn.	Absent	Suitable habitat not present within ESL.
<i>Lavinia exilicauda chi</i>	Clear Lake hitch	None/SC	Tributaries to Clear Lake are	Absent	Suitable habitat not

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

			used for spawning from January through May.		present within ESL.
<i>Oncorhynchus kisutch</i>	Coho salmon - Central California coast and Critical Habitat	E/E	Cool freshwater streams and rivers, require sand and gravel for spawning.	Absent	Suitable habitat not present within ESL.
<i>Oncorhynchus mykiss</i>	Central Valley steelhead and Critical Habitat	T/None	Cool freshwater streams and rivers; requires sand and gravel for spawning.	Absent	Suitable habitat not present within ESL.
<i>Oncorhynchus mykiss</i>	Central California coastal steelhead and Critical Habitat	T/None	Cool freshwater streams and rivers; requires sand and gravel for spawning.	Absent	Suitable habitat not present within ESL.
<i>Oncorhynchus tshawytscha</i>	California coastal chinook salmon	T/None	Ocean and coastal streams.	Absent	Suitable habitat not present within ESL.
INVERTEBRATES					
<i>Andrena blennospermatis</i>	Blennosperma vernal pool andrenid bee	None/None	Andrenid bees are solitary, living in individual burrows. Andrenid bees often nest in dry, sunny sites that contain sparse vegetation.	Absent	Suitable habitat not present within ESL.
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	T/-	Riparian and oak savanna habitats; elderberry shrub is the host plant.	Present	One elderberry shrub located within ESL.
MAMMALS					

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

<i>Antrozous pallidus</i>	Pallid bat	None/SC	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in Northern California and oak woodland, grassland, and desert scrub in Southern California. Relies heavily on trees for roosts.	Absent	Suitable habitat not present within ESL.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	None/SC	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings.	Absent	Suitable habitat not present within ESL.
<i>Lasionycteris noctivagans</i>	Silver-haired bat	None/None	Most closely associated with coniferous or mixed coniferous and deciduous forests.	Absent	Suitable habitat not present within ESL.
<i>Martes americana humboldtensis</i>	Humboldt marten	None/SC	Old growth forests.	Absent	Suitable habitat not present within ESL.
<i>Martes pennanti (pacifica) DPS</i>	Pacific fisher	C/SC	Northern coniferous and mixed forests.	Absent	Suitable habitat not present within ESL.
<i>Taxidea taxus</i>	American badger	None/SC	Typically found in open areas with scattered shrubs and trees. Also found in open forests, particularly Ponderosa pine.	Absent	Suitable habitat not present within ESL.
REPTILES					
<i>Emys marmorata</i>	Western pond turtle	None/SC	Woodlands, grasslands, and open forests; occupies ponds, marshes, rivers, streams, and irrigation canals	Present	Species not observed during surveys.

			with muddy or rocky bottoms and with aquatic vegetation.
--	--	--	--

¹Status Explanations:

Federal Status (pursuant to the Federal Endangered Species Act of 1973, as amended)

- E = endangered. Listed as being in danger of extinction.
- T = threatened. Listed as likely to become endangered within the foreseeable future.
- C = candidate. Candidate that may become a proposed species.
- None = no listing under the Federal Endangered Species Act.

State Status (pursuant to §1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California

Endangered Species Act of 1984) of the Fish and Game Code)

- E = endangered. Listed as endangered under the California Endangered Species Act.
- T = threatened. Listed as threatened under the California Endangered Species Act.
- None = no listing.

State Status (other listings)

- SC** = species of special concern. Animals not listed under the Federal Endangered Species Act or the California Endangered Species Act but which are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist.
- FP** = Fully Protected. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Environmental Consequences

The project will not result in impacts on sensitive animal species.

Avoidance, Minimization, and/or Mitigation Measures

Migratory birds may nest in trees and riparian vegetation within the project limits. To avoid impacts to birds nesting in trees and riparian vegetation within the project limits, trees and riparian vegetation would be removed from September 1 through February 14, which would be outside the migratory bird nesting season. If removal of trees and riparian vegetation within the time period of September 1 through February 14 is not feasible, a pre-construction survey for active bird nests would be conducted by a qualified biologist prior to the start of construction. If an active bird nest is found, construction would not begin at that location until after the chicks have fledged.

Migratory birds, including but not limited to swallows, may nest in the larger culverts within the project limits. In order to prevent the disruption of active nests, exclusionary methods would be incorporated into the project’s special provisions to prevent birds from nesting in larger culverts during the construction season. If exclusionary measures fail and active bird nests are present on a culvert, construction on that culvert shall not commence until after the chicks have fledged.

2.4.6 Invasive Species

Regulatory Setting

On February 3, 1999, President Clinton signed Executive Order 13112, requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” FHWA guidance issued August 10, 1999 directs the use of the state’s noxious weed list to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project. Invasive plant species include species designated as federal noxious weeds by USDA, species listed by the California Department of Food and Agriculture (CDFA), and other invasive plants designated by California Invasive Plant Council (Cal-IPC).

Affected Environment

Invasive/noxious plant species listed on the California Department of Food and Agriculture (CDFA) and the California Invasive Plant Council (Cal-IPC) noxious weed lists were observed within the Biological Study Area (BSA) during plant surveys, and are described in Table 5. No species from Federal Noxious Weed Regulation 7 CFR 360 were observed within the ESL.

Table 5: Invasive/Noxious Plant Species Found within the ESL

Scientific Name	Common Name	Rating	
		CDFA ¹	Cal-IPC ²
<i>Brassica nigra</i>	Black mustard	-	Moderate
<i>Centaurea solstitialis</i>	Yellow star-thistle	C	High
<i>Conium maculatum</i>	Poison hemlock	-	Moderate
<i>Cytisus scoparius</i>	Scotch broom	C	High
<i>Erodium cicutarium</i>	Redstem filaree	-	Limited
<i>Geranium dissectum</i>	Cut-leaf geranium	-	Moderate
<i>Raphanus sativus</i>	Wild radish	-	Limited
<i>Rubus armeniacus</i>	Himalayan blackberry	-	Limited

¹CDFA:

List C: includes weed species that are so widespread that CDFA does not endorse state or county-funded eradication containment efforts except in nurseries or seed lots.

- = no rating

²Cal-IPC:

High: These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate: These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment

is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited: These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

Environmental Consequences

The California list of noxious weed species (California Department of Food and Agriculture 2007) and invasive plant inventory (California Invasive Plant Council 2007) were reviewed to determine which invasive species occur in the study area.

Avoidance, Minimization, and/or Mitigation Measures

The proposed revegetation measures for all disturbed soils, including the use of native species, soil amendments, and “weed free” mulch, reduces the risk of introducing noxious weeds. The contract specifications for permanent erosion control would require the use of California native forb and grass species, from the same elevation and geographic area as the project site. All areas disturbed by construction would be treated with a seed mix comprised of local native grasses and forbs. Soils would be amended with compost containing long-term soil nutrients and slow-release organic fertilizers to provide nutrients over the first year. Mulches used on the project would be from source materials that would not introduce exotic species.

2.5 Hazardous Waste

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use. The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act

- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

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

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning. Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

The project, a safety project, proposes to construct a signal or roundabout at the intersection of State Route 20/Lucerne Cutoff. The project will also require construction of sidewalks, crosswalks and replacement and/or extension of existing culverts. Soil and vegetation will be disturbed by the proposed construction activities. The project area contains a gas station, feed store, orchards and pass historical industrial use.

Environmental Consequences

Two potential hazardous waste/material issues, aerially deposited lead (ADL) and naturally occurring asbestos (NOA), were identified for the project as proposed.

Avoidance, Minimization, and/or Mitigation Measures

A Preliminary Site Investigation (PSI) is required to assess the presence, and extent, if present, of ADL and/or NOA in the project area.

2.6 Water Quality

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Known today as the Clean Water Act (CWA), Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. Important CWA sections are:

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

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

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

There are two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The Section 404(b)(1) Guidelines were developed by the U.S. EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a Least Environmentally Damaging Practicable Alternative (LEDPA), to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

State Requirements: Porter-Cologne Water Quality Control Act

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

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. States designate beneficial uses for all water body segments, and then

set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, each state identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source controls, the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers water rights, water pollution control, and water quality functions throughout the state. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollution Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water dischargers, including Municipal Separate Storm Sewer Systems (MS4s). The U.S. EPA defines an MS4 as any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that are designed or used for collecting or conveying storm water. The SWRCB has identified the Department as an owner/operator of an MS4 by the SWRCB. This permit covers all Department rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

The Department's MS4 Permit, under revision at the time of this update, contains three basic requirements:

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

3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs) and other measures.

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

Part of and appended to the SWMP is the Storm Water Data Report (SWDR) and its associated checklists. The SWDR documents the relevant storm water design decisions made regarding project compliance with the MS4 NPDES permit. The preliminary information in the SWDR prepared during the Project Initiation Document (PID) phase will be reviewed, updated, confirmed, and if required, revised in the SWDR prepared for the later phases of the project. The information contained in the SWDR may be used to make more informed decisions regarding the selection of BMPs and/or recommended avoidance, minimization, or mitigation measures to address water quality impacts.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

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

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water body must obtain a 401 Certification, which certifies that the project will be in compliance with State water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before USACE issues a 404 permit.

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

Affected Environment

For the purpose of this project, the water quality study limits are on SR 20 from PM 8.1 to 8.6 and SR 29 PM 52.3 to PM 52.5. The project is located in the Upper Cache Creek Hydrologic Area (HA) and Upper Lake Hydrologic Sub-Area (HSA), and within the jurisdictional boundary of the Central Valley Regional Water Quality Control Board (CVRWQCB). Average Annual Rainfall is 43.5 inches.

The project drainage is such that storm water generally flows from North to South. Agricultural and storm runoff flow in roadside drainage ditches along SR 20 and are conveyed by a culvert to a riparian vegetated ditch adjacent to SR 29. Riparian vegetation is used to identify jurisdictional waters. For all intent and purposes, the riparian vegetated ditch

adjacent to SR 29 is identified as jurisdictional waters. District 1 Material Lab recommends lining the drainage ditch on the north (left side) of SR 20 through the project limits with Portland concrete due to the expansive characteristics of the native soils. Office of Geotechnical Design North also recommend that the ditches on SR 29 be concrete treated as well. The SR 20 and SR 29 roadway centerline grade is such that storm water usually sheet flows from the crowned section into the drainage ditches adjacent to the roadway.

The receiving water for the project limits are unnamed vegetated agricultural drainage ditches which drain to Scotts Creek confluent to Clear Lake. Scotts Creek is not a 303(d) listed water body. Scotts Creek is located approximately 1400 feet south from the SR 20/SR 29 intersection. The southern project limits on SR 29 are 100 to 300 feet from Scotts Creek.

The following documents provided by the Regional Board address Clear Lake TMDL:

- *Clear Lake Mercury Total Maximum Daily Load Update (November, 2010).*
- *Fourth Edition of the Water Quality Control Plan (Basin Plan) For the Sacramento River and San Joaquin River Basins (1998).* In 2007 the Basin Plan was amended for the control of nutrients in Clear Lake. This TMDL includes a waste load allocation of 100 kg of phosphorous per year for Cal trans facilities discharging to Clear Lake or its tributaries.

The beneficial uses of any specifically identified water body generally apply to all its tributaries. Scotts Creek lies within the Upper Cache Creek Hydrologic Area (HA). The existing beneficial uses for the Clear Lake as listed in the Basin Plan are the following:

- Municipal and Domestic Supply
- Irrigation
- Stock Watering
- Water Contact Recreation
- Non-Contact Recreation
- Warm Freshwater Habitat
- Wildlife Habitat
- Warm Spawning

Environmental Consequences

The following potential water quality concerns were identified:

- Temporary sediment transport and turbidity increase related to construction activities.
- Removal of riparian vegetation.
- Impervious surface increase, resulting in additional storm water runoff.
- Increase in concentrated flow related to proposed dikes.

Potential Short Term Impacts

Short term impacts may occur during the construction phase. Several culverts have been identified for either replacement or upgrading. Other land disturbing activities such as clearing vegetation, soil grading and creating engineered slopes will also be conducted. Temporary increased turbidity and sedimentation could result from these activities. Most of these activities will occur at the SR 20/29 intersection which is approximately 1400 feet north from Scotts Creek. No temporary impacts are expected given the construction duration, arid climate and distance from receiving waters.

Potential Long-Term Impacts

The project proposes several elements that will change the infiltration and drainage of the site, specifically the replacement of riparian vegetation with Portland concrete within the drainage ditch adjacent to SR 29. Approximately 300 feet of riparian vegetation will be replaced with Portland concrete along the ditch adjacent to north bound SR 29. However channel lining is included as a Design Pollution Prevention Best Management Practices (BMP) in the *Caltrans Storm Water Quality Handbook Project Planning and Design Guide July 2010*.

The project will increase the overall impervious surface of the highway facility. The project will also increase concentrated flow with the addition of dikes in Alternative 1(roundabout) option. This will be a permanent increase in the volume of storm water runoff discharged within the project limits. The storm water will be conveyed to concrete lined drainage ditches which will reduce the potential for sedimentation. No flooding or erosion is anticipated.

Avoidance, Minimization, and/or Mitigation Measures

Treatment Bmps

Incorporating treatment BMPs as part of the project's design should be determined by Design Storm Water Staff. The State Water Resource Control Board has increasingly focused on implementing Low Impact Development (LID) measures to manage storm water. LID aims to maintain or restore the natural hydrologic site functions by detaining water onsite, filtering out pollutants, and facilitating infiltration of storm water.

Temporary Construction BMPs

The project will be constructed with all the necessary erosion and water quality control practices to minimize the potential for sedimentation through the use of construction BMPs identified in the Department's Water Quality Handbook, Construction Site BMPs Manual. The Department's approved construction BMPs applicable to this project include measures

for temporary sediment control (e.g. silt fences, fiber rolls, straw bale barriers, temporary detention basins) and temporary soil stabilization (e.g. hydraulic mulching, hydroseeding, and straw mulch).

2.7 Climate Change

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

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

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas (GHG) Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts due to climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)¹.

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

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

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

Regulatory Setting

State

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

Assembly Bill 1493 (AB 1493), Pavley. Vehicular Emissions: Greenhouse Gases (AB 1493), 2002: requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year. In June 2009, the U.S. Environmental Protection Agency (U.S. EPA) Administrator granted a Clean Air Act waiver of preemption to California. This waiver allowed California to implement its own GHG emission standards for motor vehicles beginning with model year 2009. California agencies will be working with Federal agencies to conduct joint rulemaking to reduce GHG emissions for passenger cars model years 2017-2025.

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

AB32 (AB 32), the Global Warming Solutions Act of 2006: AB 32 sets the same overall GHG emissions reduction goals as outlined in Executive Order S-3-05, while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the State's Climate Action Team.

Executive Order S-01-07: Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this Executive Order, the carbon intensity of California's transportation fuels is to be reduced by at least ten percent by 2020.

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

Federal

Although climate change and GHG reduction is a concern at the federal level; currently there are, no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level greenhouse gas analysis. As stated on FHWA’s climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will facilitate decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies set forth by FHWA to lessen climate change impacts do correlate with efforts that the State has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and reduction in the growth of vehicle hours travelled.

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

Executive Order 13514 is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also direct federal agencies to participate in the interagency Climate Change Adaptation Task Force, which is engaged in developing a U.S. strategy for adaptation to climate change.

On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act and that the U.S. EPA has the authority to regulate GHG. The Court held that the U.S. EPA Administrator must determine whether or not emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision.

On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

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

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

U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle GHG regulations. These steps were outlined by President Obama in a memorandum on May 21, 2010.³

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

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

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

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

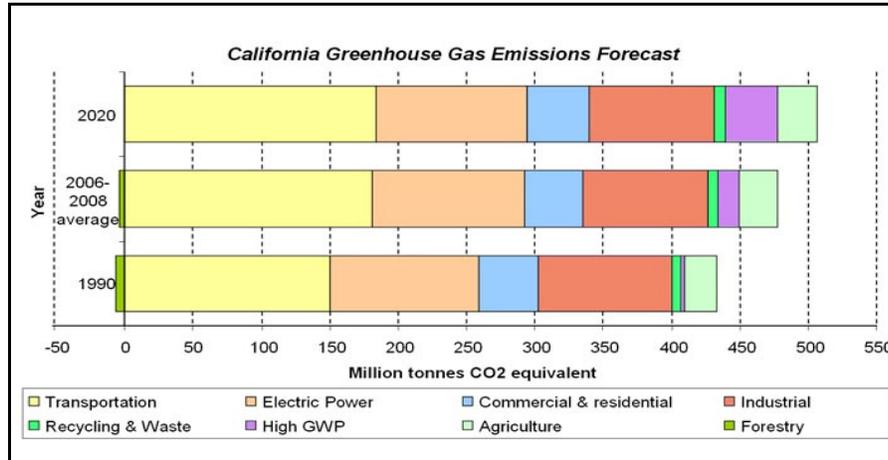
Project Analysis

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

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

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

Figure 3. California GREENHOUSE GAS FORECAST



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

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California’s GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006 (see Climate Action Program at Caltrans (December 2006)).⁵ The construction and implementation of this project will not increase capacity. The features of this project are designed to improve safety and to make the traffic flow smoother in the project area. Implementation of either build alternative is likely to reduce emissions when comparing the future build conditions to the future no build conditions. For Alternative 1 (roundabout), vehicles are not required to idle as long because drivers are not required to stop at a roundabout. This helps reduce fuel consumption and vehicle emissions. A study by the Insurance Institute for Highway Safety found the roundabouts can reduce fuel consumption by approximately 30 percent. Another study by the Institute found the roundabouts can lead to a reduction of carbon dioxide emissions by at least 37 percent (<http://www.iihs.org/research/qanda/roundabouts.html#cite12>).

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

Alternative 2 would install signals in the intersection that would generate stop and go traffic but will not increase vehicular capacity from what is currently taking place in the project area and is not expected to increase operational GHG emissions.

Construction Emissions

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

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

CEQA Conclusion

While construction will result in a slight increase in GHG emissions, it is anticipated that any increase in GHG emissions due to construction will be offset by the improvement in operational GHG emissions. While it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale to climate change, Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

AB 32 Compliance

The Department continues to be actively involved on the Governor's Climate Action Team as ARB works to implement the Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year. Former Governor Arnold Schwarzenegger's Strategic Growth Plan calls for a \$222 billion infrastructure improvement program to fortify the state's transportation system, education, housing, and waterways, including \$100.7 billion in transportation funding during the next decade. The Strategic Growth Plan targets a significant decrease in traffic congestion below today's level and a corresponding reduction in GHG emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of

investment options has been created that combined together are expected to reduce



Figure 4. Mobility

congestion. The Strategic Growth Plan relies on a complete systems approach to attain CO₂ reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as depicted in Figure 4. The Mobility Pyramid.

The Department is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high density housing along transit corridors. The Department is working closely with local jurisdictions on planning activities; however, the Department does not have local land use planning authority. The Department is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; the Department is doing this by supporting on-going research efforts at universities, by supporting legislative efforts to increase fuel economy, and by its participation on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by U.S. EPA and ARB. Lastly, the use of alternative fuels is also being considered; the Department is participating in funding for alternative fuel research at the UC Davis.

Table 6 summarizes the Department and statewide efforts that the Department is implementing in order to reduce GHG emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).

Table 6 Climate Change/CO2 Reduction Strategies

Strategy	Program	Partnership		Method/Process	Estimated CO ₂ Savings (MMT)	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Caltrans	Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	.975	7.8
Operational Improvements & Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	.07	2.17
Mainstream Energy & GHG into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CalEPA, CARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	.0045	.0065 .045 .0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	.117	.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5 % limestone cement mix 25% fly ash cement mix > 50% fly ash/slag mix	1.2 .36	4.2 3.6
Goods Movement	Office of Goods Movement	Cal EPA, CARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.18

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

- According to the Department’s Standard Specifications, the contractor must comply with all local Air Pollution Control District's rules, ordinances, and regulations in regards to air quality restrictions. The provisions of Section 14-9.01 (formerly section 7-1.01F), Air Pollution Control, and Section 14-9.02 (formerly section 10) Dust Control require the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

Adaptation Strategies

“Adaptation strategies” refer to how the Department and others can plan for the effects of climate change on the state’s transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damaging roadbeds by longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

At the Federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency report October 14, 2010 outlining recommendations to President Obama for how Federal Agency policies and programs can better prepare the United States (U.S.) to respond to the impacts of climate change. The Progress Report of the Interagency Climate Change Adaptation Task Force recommends that the Federal Government implement actions to expand and strengthen the Nation’s capacity to better understand, prepare for, and respond to climate change.

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

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

The California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state and federal public and private entities to develop. *The California Climate Adaptation Strategy* (Dec 2009)⁶, which summarizes the best known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

The strategy outline is in direct response to Executive Order S-13-08 that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Numerous other state agencies were involved in the creation of the Adaptation Strategy document, including Environmental Protection; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies

for different sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings.

⁶ <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

Resources Agency was also directed to request the National Academy of Science to prepare a Sea Level Rise Assessment Report by December 2010⁷ to advise how California should plan for future sea level rise. The report is to include:

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

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

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

All projects that have filed a Notice of Preparation, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects as of the date of Executive Order S-13-08 may, but are not required to, consider these planning guidelines. A Notice of Preparation has not been filed for this project. The project has a projected construction date of the year 2013/2014.

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

⁷ The Sea Level Rise Assessment report is currently due to be completed in 2012 and will include information for Oregon and Washington State as well as California.

transportation system vulnerability to climate change, including the effect of sea level rise.

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

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

Chapter 3 **List of Preparers**

The following Caltrans North Region staff contributed to the preparation of this Initial Study:

Sandra Rosas, Senior Environmental Planner. Contribution: Environmental Branch Chief

Larry M. Chiea, Associate Environmental Planner. Contribution: Environmental Study Coordinator and Document Writer

Jeff Haney, Associate Environmental Planner (Archaeology). Contribution: Historic Property Survey Report (HPSR)

Joan Fine, Associate Environmental Planner (Architectural Historian). Contribution: Historic resource Evaluation Report (HRER)

Jennifer Olah, Associate Environmental Planner (Natural Science). Contribution: Project biologist, Natural Environment Study (NES), Biological Assessment (BA), Consultation

Valency Langtry, Project Engineer. Contribution: Project Description, Plans, Mapping

Mike Yancheff, Transportation Engineer. Contribution: Project Manager

Mark Melani, Associate Environmental Planner (Hazardous Waste). Contribution: Initial Site Assessment (Hazardous Waste)

Christine R. Ottaway, Landscape Associate. Contribution: Visual Impact Analysis Report

Sharon Tang, Air & Noise Specialist. Contribution: Air Quality and Noise Reports

Elisa Meyer, Transportation Engineer. Contribution: Water Quality Study

Sam Gentle, Right of Way Agent. Contribution: Relocation Impact Memorandum

Appendix A California Environmental Quality Act Checklist

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

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

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

I. 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

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

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

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

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IV. BIOLOGICAL RESOURCES: Would the project:

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

V. CULTURAL RESOURCES: Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

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

VI. GEOLOGY AND SOILS: Would the project:

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

VII. GREENHOUSE GAS EMISSIONS: Would the project:

- | | |
|---|---|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included |
|---|---|

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

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

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

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

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?

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?

IX. HYDROLOGY AND WATER QUALITY: Would the project:

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

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

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

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

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

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

f) Otherwise substantially degrade water quality?

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

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

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

j) Result in inundation by seiche, tsunami, or mudflow?

X. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

XI. MINERAL RESOURCES: Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

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?

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

XII. NOISE: Would the project result in:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XIII. POPULATION AND HOUSING: Would the project:

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

XIV. PUBLIC SERVICES:

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

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

XV. RECREATION:

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

XVI. TRANSPORTATION/TRAFFIC: Would the project:

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

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- 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?
- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

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

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Appendix B Project Layout Sheets

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
		CHECKED BY	DATE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	LAK	20 29	PM 8.10/8.55 PM 52.35/52.53	2	3

REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

ALTERNATIVE 1 ROUNDBABOUT (2 of 3)

ESL Coincident With Property Line 200 ft from SR29 Existing Centerline

Proposed TCE Located 80 ft From Proposed Centerline STA "R" 309+08 **003-034-007**

Proposed R/W Located 50 ft From Proposed Centerline STA "R" 309+40 to 310+10

Proposed TCE Located 40 ft From Proposed Centerline STA "R" 308+00

Proposed R/W Located 40 ft From Proposed Centerline STA "R" 307+16 to 309+40

ESL Located 100 ft From Existing SR29 Centerline

Extend CULVERT STA "R" 304+92

End COLD PLANE STA "R" 304+63

ESL Located 100 ft From Existing SR29 Centerline



ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

DESIGN STUDY ONLY

APPROXIMATE 1/4 SECTION LINE

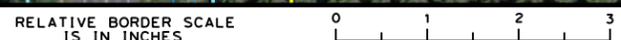
003-034-055

003-034-041

LEGEND

- Existing APN Lines
- Environmental Study Limits
- Approx. Cut/Fill Line
- TCE/Staging Area
- Proposed Right of Way
- Existing Utility - Sanitary Sewer
- Existing Utility - Overhead Power/Telephone

003-034-007
Beg ROADWORK
Beg COLD PLANE
Beg CONFORM
STA "R" 300+00



LAST REVISION DATE PLOTTED => \$DATE 00-00-00 TIME PLOTTED => \$TIME

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	LAK	20 29	PM 8.10/8.55 PM 52.35/52.53	3	3

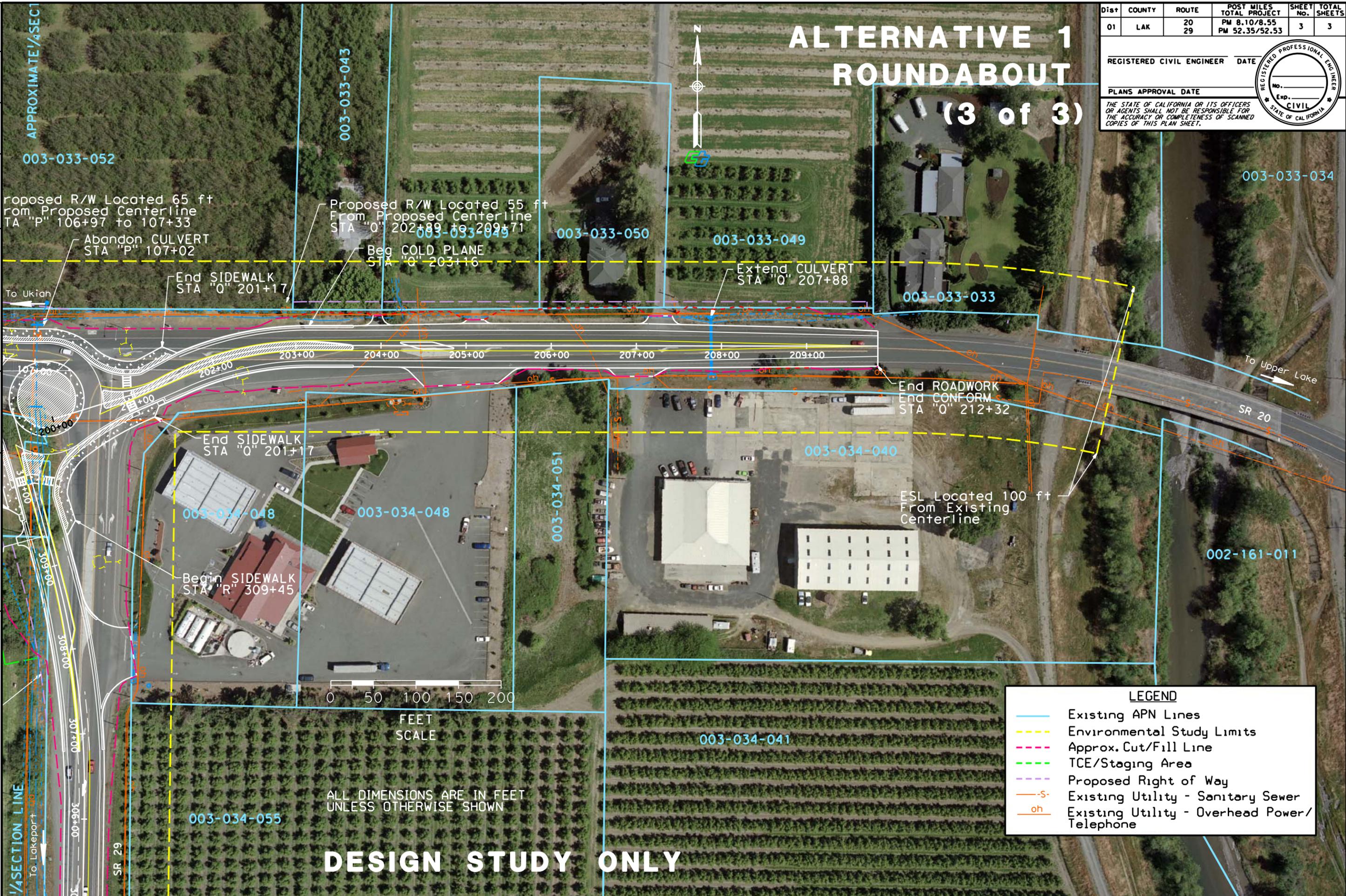
REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
No. _____
Exp. _____
CIVIL
STATE OF CALIFORNIA

ALTERNATIVE 1 ROUNDAABOUT (3 of 3)



LEGEND

- Existing APN Lines
- - - Environmental Study Limits
- - - Approx. Cut/Fill Line
- - - TCE/Staging Area
- - - Proposed Right of Way
- S- Existing Utility - Sanitary Sewer
- oh- Existing Utility - Overhead Power/Telephone

ALL DIMENSIONS ARE IN FEET
UNLESS OTHERWISE SHOWN

DESIGN STUDY ONLY

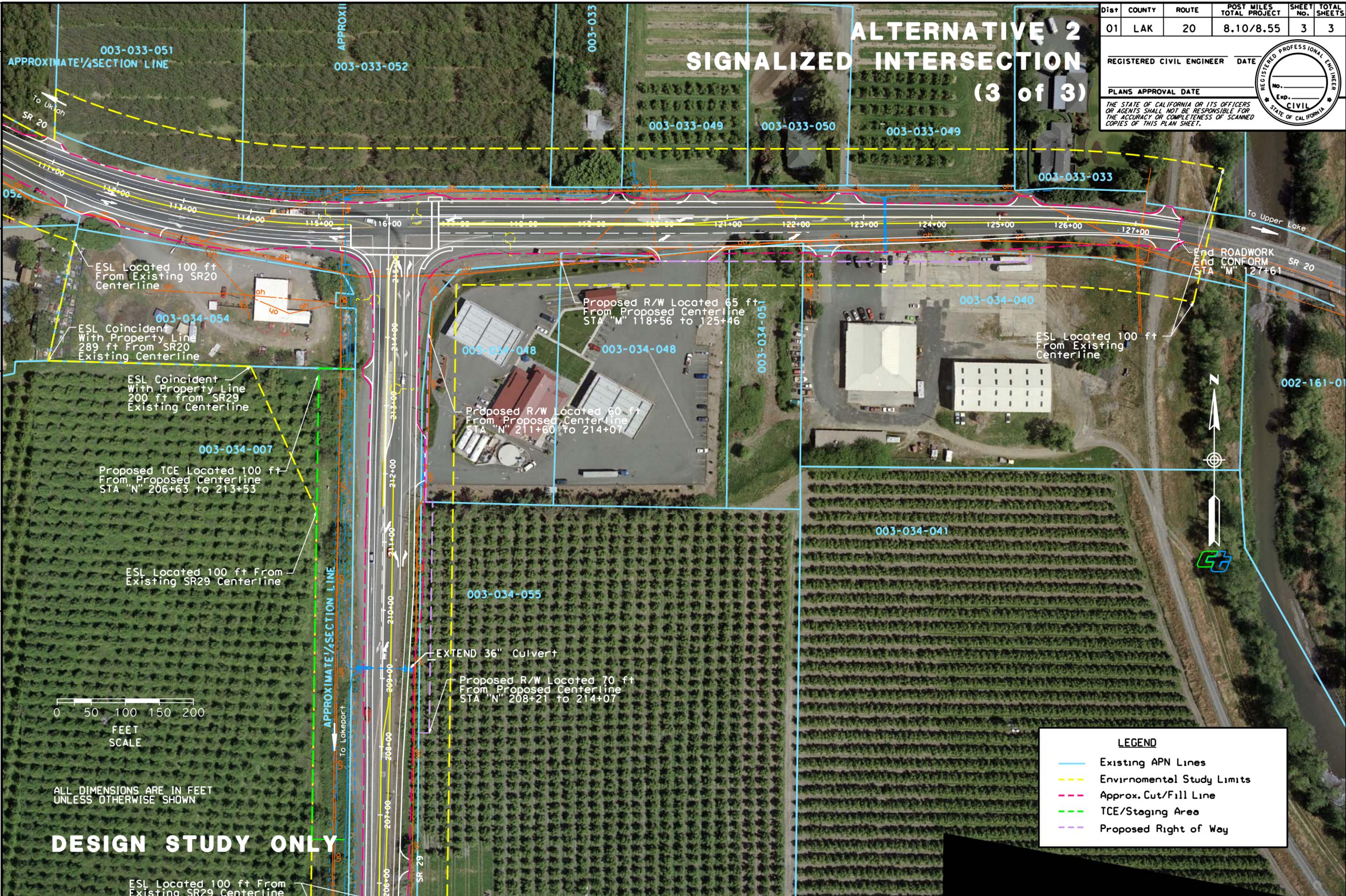
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 CALTRANS
 1/4 SECTION LINE
 To Lakeport
 SR 29
 100+00
 101+00
 102+00
 103+00
 104+00
 105+00
 106+00
 107+00
 108+00
 109+00
 110+00
 111+00
 112+00
 113+00
 114+00
 115+00
 116+00
 117+00
 118+00
 119+00
 120+00
 121+00
 122+00
 123+00
 124+00
 125+00
 126+00
 127+00
 128+00
 129+00
 130+00
 131+00
 132+00
 133+00
 134+00
 135+00
 136+00
 137+00
 138+00
 139+00
 140+00
 141+00
 142+00
 143+00
 144+00
 145+00
 146+00
 147+00
 148+00
 149+00
 150+00
 151+00
 152+00
 153+00
 154+00
 155+00
 156+00
 157+00
 158+00
 159+00
 160+00
 161+00
 162+00
 163+00
 164+00
 165+00
 166+00
 167+00
 168+00
 169+00
 170+00
 171+00
 172+00
 173+00
 174+00
 175+00
 176+00
 177+00
 178+00
 179+00
 180+00
 181+00
 182+00
 183+00
 184+00
 185+00
 186+00
 187+00
 188+00
 189+00
 190+00
 191+00
 192+00
 193+00
 194+00
 195+00
 196+00
 197+00
 198+00
 199+00
 200+00
 201+00
 202+00
 203+00
 204+00
 205+00
 206+00
 207+00
 208+00
 209+00
 210+00
 211+00
 212+00
 213+00
 214+00
 215+00
 216+00
 217+00
 218+00
 219+00
 220+00
 221+00
 222+00
 223+00
 224+00
 225+00
 226+00
 227+00
 228+00
 229+00
 230+00
 231+00
 232+00
 233+00
 234+00
 235+00
 236+00
 237+00
 238+00
 239+00
 240+00
 241+00
 242+00
 243+00
 244+00
 245+00
 246+00
 247+00
 248+00
 249+00
 250+00
 251+00
 252+00
 253+00
 254+00
 255+00
 256+00
 257+00
 258+00
 259+00
 260+00
 261+00
 262+00
 263+00
 264+00
 265+00
 266+00
 267+00
 268+00
 269+00
 270+00
 271+00
 272+00
 273+00
 274+00
 275+00
 276+00
 277+00
 278+00
 279+00
 280+00
 281+00
 282+00
 283+00
 284+00
 285+00
 286+00
 287+00
 288+00
 289+00
 290+00
 291+00
 292+00
 293+00
 294+00
 295+00
 296+00
 297+00
 298+00
 299+00
 300+00
 301+00
 302+00
 303+00
 304+00
 305+00
 306+00
 307+00
 308+00
 309+00
 310+00
 311+00
 312+00
 313+00
 314+00
 315+00
 316+00
 317+00
 318+00
 319+00
 320+00
 321+00
 322+00
 323+00
 324+00
 325+00
 326+00
 327+00
 328+00
 329+00
 330+00
 331+00
 332+00
 333+00
 334+00
 335+00
 336+00
 337+00
 338+00
 339+00
 340+00
 341+00
 342+00
 343+00
 344+00
 345+00
 346+00
 347+00
 348+00
 349+00
 350+00
 351+00
 352+00
 353+00
 354+00
 355+00
 356+00
 357+00
 358+00
 359+00
 360+00
 361+00
 362+00
 363+00
 364+00
 365+00
 366+00
 367+00
 368+00
 369+00
 370+00
 371+00
 372+00
 373+00
 374+00
 375+00
 376+00
 377+00
 378+00
 379+00
 380+00
 381+00
 382+00
 383+00
 384+00
 385+00
 386+00
 387+00
 388+00
 389+00
 390+00
 391+00
 392+00
 393+00
 394+00
 395+00
 396+00
 397+00
 398+00
 399+00
 400+00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR
 CALCULATED/DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED

ALTERNATIVE 2 SIGNALIZED INTERSECTION (3 of 3)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	LAK	20	8.10/8.55	3	3

REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



LEGEND

- Existing APN Lines
- Environmental Study Limits
- Approx. Cut/Fill Line
- TCE/Staging Area
- Proposed Right of Way

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

DESIGN STUDY ONLY

Appendix C Minimization and/or Mitigation Summary

Right-of-Way Relocation

There is one commercial property that will need to be acquired for Alternative 1 (roundabout) and requiring relocation to another site. The commercial property owners qualify for relocation assistance. The Caltrans would help the property owners find a suitable place to relocate and help in the move and setup of the relocated business.

Biology

To protect the elderberry shrub during construction, the standard avoidance and minimization measures outlined in the USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* and the 1997 *Formal Programmatic Consultation Permitting Projects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office, California* (File # 1-1-96-F-156 – March 1997) between the USFWS and FHWA would be followed. The USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* defines a buffer area as the area within 100 feet of the dripline of any elderberry shrub. A core avoidance area is defined as the area within 20 feet of the dripline of any elderberry shrub. In areas that are within 100 feet of any elderberry shrub, construction-related disturbance would be minimized, and any areas that are impacted would be restored upon completion of construction. Protective measures would be implemented within all elderberry shrub buffer areas and would include:

1. The elderberry shrub would be shown on construction plans as an “Environmentally Sensitive Areas (ESA).” To protect this area, the contractor would be required to install temporary fencing before any other work begins to protect the shrubs against inadvertent impacts that could be caused by construction activities. Project activities would occur within 20 feet of the elderberry shrub, therefore ESA fencing would be installed as far away from the shrub as possible. If any section of the fence is damaged, the fence would be repaired by construction personnel or other authorized persons within one working day of discovery.

2. Contractors would be educated about the importance of not touching or damaging any elderberry shrub, and what the consequences of doing so are.
3. Signs would be placed every 50 feet along the edge of the ESA stating: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.” These signs would be readable from 20 feet away. The signs would be maintained during the entire duration of construction.
4. Contractors and workers would be informed about the status of the valley elderberry longhorn beetle and the need to protect its host plant, the elderberry shrub, prior to construction. This would take place at a pre-construction meeting between Caltrans and the contractor.
5. Any impacts to buffer areas would be restored after construction is complete. The affected areas would be revegetated with native plants appropriate for the project location.
6. Caltrans’ Best Management Practices would be in place during construction and would serve to minimize soil erosion and airborne dust.

A total of 1 elderberry shrub stem would be impacted by this project. Based on ratios from the USFWS 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*, 3 elderberry shrub seedlings and 3 associate native species would need to be planted to compensate for direct and indirect impacts to habitat for the valley elderberry longhorn beetle. Proposed mitigation to offset impacts to valley elderberry longhorn beetle habitat may include, but is not limited to, the purchase of 1 valley elderberry longhorn beetle mitigation credit from the Center for Natural Lands Management

The proposed revegetation measures for all disturbed soils, including the use of native species, soil amendments, and “weed free” mulch, reduces the risk of introducing noxious weeds. The contract specifications for permanent erosion control would require the use of California native forb and grass species, from the same elevation and geographic area as the project site. All areas disturbed by construction would be treated with a seed mix comprised of local native grasses and forbs. Soils would be amended with compost containing long-term soil nutrients and slow-release organic

Migratory birds may nest in trees and riparian vegetation within the project limits. To avoid impacts to birds nesting in trees and riparian vegetation within the project limits, trees and riparian vegetation would be removed from September 1 through February 14, which would be outside the migratory bird nesting season. If removal of trees and riparian vegetation within the time period of September 1 through February 14 is not feasible, a pre-construction survey for active bird nests would be conducted by a qualified biologist prior to the start of construction. If an active bird nest is found, construction would not begin at that location until after the chicks have fledged.

Migratory birds, including but not limited to swallows, may nest in the larger culverts within the project limits. In order to prevent the disruption of active nests, exclusionary methods would be incorporated into the project's special provisions to prevent birds from nesting in larger culverts during the construction season. If exclusionary measures fail and active bird nests are present on a culvert, construction on that culvert shall not commence until after the chicks have fledged.

Proposed mitigation to offset unavoidable impacts to other waters of the U. S. may include, but is not limited to, the following: onsite creation of other waters of the U.S.; onsite vegetated buffers; onsite and offsite restoration; revegetation and enhancement; and the purchase of credits at an approved mitigation bank, if available. Mitigation to offset impacts to other waters of the U. S. would be subject to the review and approval of USACE, CVRWQCB, and CDFG.

The following measures would be incorporated into the project to minimize impacts to wetlands and other waters of the U. S. during construction:

- Work within other waters of the U. S. would be restricted to the dry/low flow season (April 15 and October 15) of any construction season.
- Other waters of the U. S. that are temporarily impacted during construction would be restored to pre-project conditions following the completion of construction.
- Standard water quality Best Management Practices (BMPs) would be implemented to minimize erosion into waterbodies present within the ESL.
- Spills of hazardous materials would be prevented.
- Prior to onset of construction, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared. The SWPPP would prescribe BMPs,

appropriate to each culvert, in keeping with the BMPs described in Caltrans' Water Quality Handbook.

Water Quality

Treatment BMPs

Incorporating treatment BMPs as part of the project's design should be determined by Design Storm Water Staff. The State Water Resource Control Board has increasingly focused on implementing Low Impact Development (LID) measures to manage storm water. LID aims to maintain or restore the natural hydrologic site functions by detaining water onsite, filtering out pollutants, and facilitating infiltration of storm water.

Temporary Construction BMPs

The project will be constructed with all the necessary erosion and water quality control practices to minimize the potential for sedimentation through the use of construction BMPs identified in the Department's Water Quality Handbook, Construction Site BMPs Manual. The Department's approved construction BMPs applicable to this project include measures for temporary sediment control (e.g. silt fences, fiber rolls, straw bale barriers, and temporary detention basins) and temporary soil stabilization (e.g. hydraulic mulching, hydroseeding, and straw mulch).

Cultural

An ESA will be established around the portion of CA-LAK-2197H outside of the ADI to protect this portion of the site from inadvertent damage during project construction.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

Appendix D Relocation Assistance Program

California Department of Transportation Relocation Assistance Program

RELOCATION ASSISTANCE ADVISORY SERVICES

This Appendix is general in nature and is not intended to be a complete statement of federal and state relocation laws and regulations. Any questions concerning relocation should be addressed to Caltrans Right of Way. This section provides some general descriptive information on Public Law (PL) 91-646, the [Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended](#). This is often referred to simply as the “Uniform Act.” The information in this Appendix is provided only as background and is not intended as a complete statement of all the State or Federal laws and regulations; for specific details the environmental planner should contact the appropriate Caltrans District or Regional Right of Way Relocation Branch. After presenting an outline of the basic legal foundation for relocation policy, the Appendix looks at important relocation assistance information, including advisory services and the payment program. Refer to the [Caltrans Right of Way Manual Chapter 10](#), for more detailed and specific information regarding relocation and housing programs.

DECLARATION OF POLICY

“The purpose of this title is to establish a ***uniform policy for fair and equitable treatment*** of persons displaced as a result of federal and federally assisted programs in order that such persons ***shall not suffer disproportionate injuries*** as a result of programs designed for the benefit of the public as a whole.”

The Fifth Amendment to the U.S. Constitution states, “No Person shall...be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation.” The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations, Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

FAIR HOUSING

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This Act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of

neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require Caltrans to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized, and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations, and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Caltrans relocation advisor.

RELOCATION ASSISTANCE ADVISORY SERVICES

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use, so long as they are legally present in the United States. Caltrans will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are "decent, safe and sanitary." Nonresidential displacees will receive information on comparable properties for lease or purchase (For business, farm and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning Federal and State assisted housing programs, and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable "decent, safe and sanitary" replacement dwelling, available on the market, is offered to them by Caltrans.

RESIDENTIAL RELOCATION PAYMENTS

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

Moving Costs

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until the Department obtains control of the property in order to be eligible for relocation payments.

Purchase Differential

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 180 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property), may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. The maximum combination of these three supplemental payments that the owner-occupant can receive is \$22,500. If the total entitlement (without the moving payments) is in excess of \$22,500, the Last Resort Housing Program will be used (See the explanation of the Last Resort Housing Program below).

Rent Differential

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by Caltrans prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when Caltrans determines that the cost to rent a comparable “decent, safe and sanitary” replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the

Down Payment section below. The maximum amount payable to any eligible tenant and any owner-occupant of less than 180 days, in addition to moving expenses, is \$5,250. If the total entitlement for rent supplement exceeds \$5,250, the Last Resort Housing Program will be used.

In order to receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe and sanitary” replacement dwelling within one year from the date the Department takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

Down Payment

The down payment option has been designed to aid owner-occupants of less than 180 days and tenants in legal occupancy prior to Caltrans’ initiation of negotiations. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250. The one-year eligibility period in which to purchase and occupy a “decent, safe and sanitary” replacement dwelling will apply.

Last Resort Housing

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the \$22,500 and \$5,250 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, Caltrans will within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced;
- Specific arrangements needed to accommodate any family member(s) with special needs;
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family;
- Preferences in area of relocation;
- Location of employment or school.

C-4

NONRESIDENTIAL RELOCATION ASSISTANCE

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent,

suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

Moving Expenses

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment and similar business-related property, including: dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items acquired in the Right of Way contract may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.
- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.
- Expenses related to searching for a new business site, up to \$2,500, for reasonable expenses actually incurred.

Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to \$10,000 for reasonable expenses actually incurred.

Fixed In Lieu Payment

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses which meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than \$1,000 nor more than \$20,000.

ADDITIONAL INFORMATION

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, *except* for any Federal law providing local "Section 8" Housing Programs.

Any person, business, farm or nonprofit organization which has been refused a relocation payment by the Caltrans relocation advisor or believes that the payment(s) offered by the agency are inadequate, may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwill that arises from the displacement for a public project. A list of ineligible expenses can be obtained from

Caltrans Right of Way. California's law and the federal regulations covering relocation assistance provide that no payment shall be duplicated by other payments being made by the displacing agency.

Include as applicable:

RESIDENTIAL RELOCATION PAYMENTS PROGRAM

The links below are to the Relocation Assistance for Residential Relocation Brochure. Print them and place them in the environmental document as applicable.

http://www.dot.ca.gov/hq/row/pubs/residential_english.pdf

http://www.dot.ca.gov/hq/row/pubs/residential_spanish.pdf

If the project requires relocation of mobile homes, print and include the following:

http://www.dot.ca.gov/hq/row/pubs/mobile_eng.pdf

http://www.dot.ca.gov/hq/row/pubs/mobile_sp.pdf

THE BUSINESS AND FARM RELOCATION ASSISTANCE PROGRAM

If the project requires relocation of businesses and/or farms, print and include the following:

http://www.dot.ca.gov/hq/row/pubs/business_farm.pdf

http://www.dot.ca.gov/hq/row/pubs/business_sp.p

List of Technical Studies that are Bound Separately

Air Quality Evaluation

Hazardous Waste Reports

 Initial Site Assessment

Historical Property Survey Report

 Historic Resource Evaluation Report

 Historic Architectural Survey Report

 Archaeological Survey Report

Location Hydraulic Study

 Floodplain Analysis

Natural Environment Study

Noise Environmental Document Assessment Report

Relocation Impact Memorandum

Visual Impact Assessment

Water Quality Study