EXHIBIT D

South Main Street and Soda Bay Road Widening and Bike Lanes Project

Lake County, California
RPSTPLE-5914 (042) and RPSTPLE-5914 (043)

Initial Study with Mitigated Negative Declaration/ Environmental Assessment

Prepared for the State of California Department of Transportation and the Lake County Department of Public Works

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

Caltrans

December 2012

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General Information About This Document

This document is a Mitigated Negative Declaration (MND)/Finding of No Significant Impact (FONSI) based upon an Initial Study (IS)/Environmental Assessment (EA) in accordance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA) is the lead agency under NEPA. The Lake County Department of Public Works (DPW) is the lead agency under CEQA. The document describes the proposed project and why it is being approved. It also describes the two project alternatives, the existing environment that could be affected by the project, the potential impacts, and the avoidance, minimization, and mitigation measures.

The Draft Environmental Document was released for public review on May 11, 2011 with a comment period that extended through June 10, 2011. A public open house/informational meeting was held at the Lake County Courthouse in the City of Lakeport on May 23, 2011. All written comments received during the comment period and at the public open house are included, with responses provided, in Chapter 3 of this document. There are minor changes and revisions to the text of the Environmental Document that are indicated by a vertical line in the margin.

For individuals with sensory disabilities, this document can be made available in Braille, large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Brandon Larsen, Senior Environmental Planner, District 1, P.O. Box 3700, Eureka, CA 95502; (707) 445-6410 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

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State Clearinghouse Number: 2011052028
RPSTPLE-5914 (042)
and RPSTPLE-5914 (043)

Add a center turning lane, construct Class II bicycle lanes, underground utility lines, and improve utility infrastructure on South Main Street and Soda Bay Road in Lake County, California

INITIAL STUDY with Mitigated Negative Declaration/ ENVIRONMENTAL ASSESSMENT

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

THE STATE OF CALIFORNIA
Department of Transportation

LAKE COUNTY
Department of Public Works

Dec 19, 2012
Date of Approval

Cindy Anderson
North Region Office Chief
California Department of Transportation

DEC 12, 2012
Date of Approval

Lars Ewing
Assistant Public Works Director
Lake County Department of Public Works

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CALIFORNIA DEPARTMENT OF TRANSPORTATION
FINDING OF NO SIGNIFICANT IMPACT (FONSI)

FOR

South Main Street and Soda Bay Road Widening and Bike Lanes Project

The California Department of Transportation (Caltrans) has determined that this project will have no significant impact on the human environment. This FONSI is based on the attached Environmental Assessment (EA) which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Study is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached EA.

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.

Dec 19, 2012
Date of Approval

Cindy Anderson
North Region Office Chief
California Department of Transportation

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MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The Lake County Department of Public Works (DPW) proposes to add a center turning lane, construct Class II bicycle lanes, underground overhead utility lines, and improve utility infrastructure on South Main Street and Soda Bay Road in the Lakeport area of Lake County, California. The South Main Street and Soda Bay Road Widening and Bike Lanes Project consists of a 0.5-mile segment of South Main Street, from the Lakeport city limits to the State Route (SR) 175 extension, and a 0.75-mile segment of Soda Bay Road extending south from SR 175 to approximately 0.1 mile west of Manning Creek. The goal of the project is to improve traffic flow and pedestrian safety along South Main Street and Soda Bay Road. Lake County is the lead agency for the project under (CEQA), and the California Department of Transportation (Caltrans) is the lead agency for the National Environmental Policy Act (NEPA).

Determination

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

The proposed project would have no effects associated with the Coastal Zone, Wild and Scenic Rivers, Parks and Recreation Facilities, Growth, Community Character and Cohesion, Relocations, Environmental Justice, Air Quality, and Threatened and Endangered Species. In addition, the proposed project would have no significant effects associated with Visual Resources, Plan Consistency, Farmlands/Timberlands, and Traffic and Transportation. Avoidance and minimization measures would reduce any potential Land Use (right-of-way acquisitions), Utilities and Emergency Services, Hydrology and Floodplain, Water Quality and Storm Water Runoff, Geology and Soils, Paleontological Resources, Hazardous Waste and Materials, Noise, Wetlands and Other Waters, Plant and Animal Species, Invasive Species, and Climate Change effects of the project.

The proposed project would have no significantly adverse effect on cultural resources because the following mitigation measures would reduce potential effects to insignificance: preparation of a Historic Property Treatment Plan to outline research design, excavation, and data recovery and/or evaluation procedures for archaeological sites; implementation of Environmentally Sensitive Area fencing to protect resources during construction; and archaeological monitoring during construction.

Lars Ewing, PE
Assistant Public Works Director
Lake County Department of Public Works

DEC 12, 2012
Date

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List of Abbreviated Terms

AB	Assembly Bill
ADL	aerially-deposited lead
AER	Archaeological Evaluation Report
APE	Area of Potential Effects
APN	assessor's parcel number
ASR	Archaeological Survey Report
BMPs	best management practices
BSA	Biological Study Area
BTEX	benzene, toluene, ethyl benzene and total xylenes
CAA	Clean Air Act
Cal/OSHA	California Division of Occupational Safety and Health
California Register	California Register of Historical Resources
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire Protection
CDFG	California Department of Fish and Game
CDTSC	California Department of Toxic Substances Control
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
City	City of Lakeport
CNDDB	California Natural Diversity Data Base
CNEL	community noise equivalent level
CNPS	California Native Plant Society
County	Lake County
dBA	A-weighted decibel
DIPE	di-isopropyl ether
DPW	Lake County Department of Public Works
EDR	Environmental Data Resources, Inc.
EO	Executive Order
EPA	United States Environmental Protection Agency
ETBE	ethyl tertiary butyl ether
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FPPA	Farmland Protection Policy Act
GHG	greenhouse gas
HPTP	Historic Property Treatment Plan
HSP	Health and Safety Plan
ISA	Phase I Initial Site Assessment
IS/EA	Initial Study/Environmental Assessment
kg	kilograms

l	liter
LCAQMD	Lake County Air Quality Management District
LCP	lead-containing paint
$L_{eq}(h)$	hourly peak equivalent sound level
L_{dn}	day/night noise level
L_{max}	maximum noise levels
MBTA	Migratory Bird Treaty Act
mg	milligrams
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MTBE	methyl tertiary butyl ether
NAC	noise abatement criteria
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NES	Natural Environment Survey
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NOA	naturally occurring asbestos
NOAA Fisheries	National Oceanic and Atmospheric Administration, National Marine Fisheries Service
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OES	Lake County Office of Emergency Services
OHSA	Occupational Safety and Health Administration
PA	Programmatic Agreement
PDT	Project Development Team
PG&E	Pacific Gas and Electric Company
PRC	Public Resources Code
PUE	public utilities easement
RCRA	Resource Conservation and Recovery Act
ROW	right-of-way
RTIP	Regional Transportation Improvement Program
RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Officer
SR	State Route
STIP	State Transportation Improvement Program
STLC	Soluble Threshold Limit Concentration
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAME	tertiary amyl methyl ether
TBA	tertiary butyl alcohol
TCLP	Toxicity Characteristic Leaching Procedure
TMDL	Total Maximum Daily Load
TMP	Traffic Management Plan
TNM	traffic noise model
TPH-D	total petroleum hydrocarbons as diesel
TPH-G	total petroleum hydrocarbons as gasoline
TTLC	Total Threshold Limit Concentration

USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOCs	volatile organic compounds
WET	Waste Extraction Test

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Chapter 1 Proposed Project

1.1 Introduction

The Lake County Department of Public Works (DPW) proposes to add a center turning lane, construct Class II bicycle lanes, underground overhead utility lines, and improve utility infrastructure on South Main Street and Soda Bay Road in the Lakeport area of Lake County, California. The South Main Street and Soda Bay Road Widening and Bike Lanes Project consists of a 0.5-mile segment of South Main Street, from the Lakeport city limits to the State Route (SR) 175 extension, and a 0.75-mile segment of Soda Bay Road extending south from SR 175 to approximately 0.1 mile west of Manning Creek (refer to Figures 1.1-1 and 1.1-2). The fundamental objective of the project is to improve traffic operations and safety.

Lake County (County) is the lead agency for the project under the California Environmental Quality Act (CEQA), and the California Department of Transportation (Caltrans) is the lead agency for the National Environmental Policy Act (NEPA).

1.1.1 Project Background

In July 1993, the City of Lakeport (City) and the County entered into a Memorandum of Understanding (MOU) to establish improvement standards for the South Main Street Corridor from Lakeport Boulevard to the Clearlake Redi-Mix property at 99 Soda Bay Road. The purpose of the MOU was to coordinate improvement efforts for portions of South Main Street outside of the City with those areas located within the City limits. Consistent with the City's improvement standards, the improvement standards outlined in the MOU consisted of a 66-foot-wide right-of-way (ROW); four travel lanes; bike lanes; and curb, gutter, and sidewalk.

The Lakeport Area Plan (2000) identifies the South Main Street and Soda Bay Road corridor as a special study area and recommends: upgrading design standards and unifying the design of commercial and light industrial development; undergrounding utilities for new development; and updating agreements between the City of Lakeport and the County regarding road improvements. In accordance with the Lakeport Area Plan, an engineering study was undertaken to determine the geometric standards needed to accommodate projected traffic volumes and patterns along the South Main Street and Soda Bay Road corridor. In 2002, TJKM Transportation Consultants completed the Soda Bay Road/South Main Street Corridor Study. The Study proposed a set of improvement standards to accommodate the traffic generated by future development according to the land use designations of the County General Plan (1981, recently updated in 2008), City of Lakeport General Plan (1991, recently updated in 2009), and the Lakeport Area Plan (2000). As part of the Study, the Lake County Travel Forecast Model was updated with the most recently published population and socioeconomic data and used to provide future (Year 2020) traffic volumes.

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FIGURE 1.1-1

N

0 1 2
MILES

South Main Street and Soda Bay Road Widening and Bike Lanes Project

Regional Location

SOURCE: StreetMap North America (2008)

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FIGURE 1.1-2

South Main Street and Soda Bay Road Widening and Bike Lanes Project

Proposed Project

N

0 250 500

Feet

Project Area

Parcel Boundary

Proposed Right-of-way

City of Lakeport Boundary

Water Course (Culverted Under Roads)

Lateral Utility Trench

Source: DigitalGlobe, Inc., 2006

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Upon completion of the Soda Bay Road/South Main Street Corridor Study, the City and County entered into a new MOU reflecting the Study's recommendations. The limits of the corridor were extended to the Manning Creek Bridge and improvement standards were adopted for South Main Street and Soda Bay Road. The standard for South Main Street consisted of a 79-foot-wide ROW; four travel lanes with a continuous center turn lane; bike lanes; and curb, gutter, and sidewalk. The standard for Soda Bay Road consisted of a 56-foot-wide ROW; two travel lanes with a continuous center turn lane; bike lanes; and curb, gutter, and sidewalk. The proposed project improvements of two travel lanes and a center turn lane will accommodate the more long-range improvements (e.g., four travel lanes). The Lake County DPW has received State Transportation Improvement Program (STIP) funding, as well as Federal Demonstration Funding under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users for implementing the recommended standards.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the proposed project is to:

- Improve traffic flow and safety for motorists, bicyclists and pedestrians;
- Improve access to businesses along South Main Street and Soda Bay Road;
- Rehabilitate deficient pavement along the corridor;
- Improve roadway surface drainage; and
- Underground existing overhead utility poles within the County's underground utility district boundary.

1.2.2 Need

Project Need

Improve traffic flow and safety for motorists, bicyclists and pedestrians. Soda Bay Road provides a key link between the Lakeport planning area and the Kelseyville and Riviera planning areas in the County. After the state highway system, which includes SR 29 and SR 175, the South Main Street and Soda Bay Road corridor receives the highest traffic volumes within the planning area and serves as an important business corridor within the County.

The Lakeport Area Plan, adopted in 2000, covers approximately 72 square miles of the County north and west of Clear Lake. The Plan includes recommendations for special study areas, including the South Main Street and Soda Bay Road corridor. For the South Main Street and Soda Bay Road area, the Plan recommends: upgrading design standards and unifying the design of commercial and light industrial development; undergrounding utilities for new development; and updating agreements between the City and the County regarding road improvements. As detailed in the Traffic Operational Analysis (TJKM Transportation Consultants 2008), the project itself would not generate additional vehicle trips, yet it would improve safety, mobility, and access for existing

traffic and the anticipated increase in traffic along the alignment due to a projected increase in population and jobs through general plan build-out.

Table 1.2.2-1 summarizes existing traffic levels (based on counts collected in 2007), projected traffic forecasts for the years 2010 and 2030, and the accompanying service levels for the existing street geometry. The data is based on the existing roadway geometry, which consists of two 11-foot-wide travel lanes with 1-foot-wide shoulders within a ROW width that varies between 60 and 72 feet (Figure 1.2.2-1). Projected traffic conditions for the years 2010 and 2030 were obtained by inputting the 2007 traffic count information into the Lake County Travel Forecast Model, which was updated using the current population and employment information from the California Employment Development Department. As shown in the table, the street segment of South Main Street south of the Lakeport city limits currently operates at less than the County's standard of LOS C under 2007 traffic conditions[1]. The LOS would continue to degrade under future conditions.

Table 1.2.2-1. Street Segment Level of Service, Projected Traffic Forecasts

Street Segment	2007			2010 Model Forecasts			2030 Model Forecasts		
	ADT	Pk Hr	LOS*	ADT	Pk Hr	LOS*	ADT	Pk Hr	LOS*
South Main Street									
s/o Peckham Court	7,890	940	**D**	9,640	1,158	**D**	14,860	1,786	**E**
Soda Bay Road									
s/o SR 175 Ext	5,790	480	C	6,280	520	C	9,680	800	C
w/o Manning Creek	2,350	210	A	2,620	235	A	4,510	405	A

Source: TJKM Transportation Consultants (2008)
Notes: ADT = Average Daily Traffic
Pk Hr = Peak Hour (12:00 p.m. to 1:00 p.m.); represents the highest traffic volumes in the Lakeport area
LOS = Level of Service of existing street segments
* = LOS calculated for August peak volumes (14 percent higher than ADT)

A five-year history of accidents within the project limits indicates that the accident rate is 1.25 accidents per million vehicle miles of travel (TJKM Transportation Consultants 2008). This rate is at the average accident rate for this class of road statewide. The statewide average is 1.24 for rural areas on two-lane roads.

[1] Level of service (LOS) is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and passengers. The LOS generally describes these conditions in terms of such factors as speed and travel time, delay, freedom to maneuver, traffic interruption, comfort and convenience, and safety. Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each LOS represents a range of operating conditions and the driver's perception of these conditions. LOS C is the standard recommended by the Lake County/City Area Planning Council. LOS C is, by definition, achieved when the percent time-spent-following is between 55 percent and 70 percent (TJKM Transportation Consultants 2008).

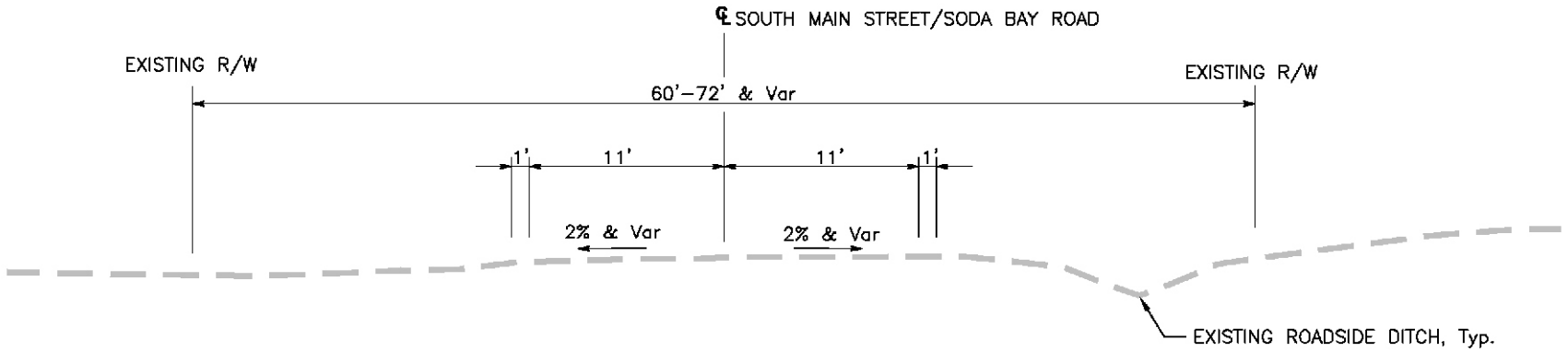

FIGURE 1.2.2-1

South Main Street and Soda Bay Road
Widening and Bike Lanes Project

Existing Typical Section

SOURCE: QUINCY ENGINEERING, INC. (MARCH 2011)

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The Lake County Regional Bikeway Plan (2006) considers South Main Street and Soda Bay Road among the highest priorities in the County, ranking them 7th and 8th respectively. Proposed improvements in the Bikeway Plan include a Class II bike lane (on-street striped bike lane) to meet the commute needs of residents of south Lakeport and the unincorporated community to the south.

Improve access to businesses along South Main Street and Soda Bay Road. South Main Street and Soda Bay Road is the busiest commercial corridor within the County, with a significant portion of the County's tax revenues generated by businesses located in the corridor. Therefore, access to businesses along South Main Street and Soda Bay Road must be maintained and improved.

Rehabilitate deficient pavement along the corridor. Existing roadway pavement throughout the corridor exhibits cracking and general decline, and affects the quality of the roadway driving experience.

Improve roadway surface drainage. Existing storm drainage throughout the roadway corridor is insufficient to adequately control flooding during rain events. Local nuisance flooding and roadway topping has occurred in the past and presents an impediment to travel accordingly.

Underground existing overhead utility poles within the County's underground utility district boundary. Existing overhead utility lines and poles visually clutter each side of this commercial corridor in Lake County. Widening the roadway will require the existing utility poles on both sides of the street to be relocated.

Independent Utility and Logical Termini

The proposed project improvements will serve the specific project need as described above. Project improvements will be designed and funded as a single stand-alone project, specific to the project corridor. These improvements are exclusive of any future plans in the corridor that are intended to complete the objectives outlined in the Lakeport Area Plan and City/County MOU, or any other adjacent roadway improvements planned in the vicinity. The proposed project will ultimately accommodate the long-range Lakeport Area Plan and MOU to expand the project section to four travel lanes and one turn lane (five lanes total). None of the project improvements will preclude the implementation of these plans.

As the ultimate footprint for the roadway corridor is intended to accommodate a total of five lanes in width, environmental studies and utility relocations conducted for the proposed project considered this larger footprint so as not to preclude or constrain any future improvements. Funding for the proposed project improvements will only address the improvements identified in the Project Description and will resolve the current issues involving operational deficiencies. None of the project improvements is considered capacity enhancing as additional travel lanes are not included in the current project. As future funding sources are identified, and as future traffic increases to forecasted levels, other capacity enhancing improvements will be needed, consistent with the Lakeport Area Plan and City/County MOU objectives.

The project limits are defined by the need to operationally improve travel through the corridor. Addition of a center turn lane will operationally improve access to local

businesses, thus eliminating left turn movements from the travel lane and improving traffic operations (while reducing accidents). The center left turn lane is entirely within the project limits and does not extend beyond the business core. All project improvements can be accommodated within the limits of the project footprint without indirectly impacting adjacent land uses or triggering the need for adjacent improvements. As the project improvements are not capacity enhancing, additional vehicles are not expected to be drawn to the project area, nor will the project improvements generate new traffic. Consequently, no other improvements will be needed beyond the project footprint that will extend into adjacent resources.

1.3 Project Description

The proposed project is located in Lake County (Figure 1.1-1) on South Main Street and Soda Bay Road and would add a center turning lane, construct Class II bicycle lanes, underground overhead utility lines, and improve utility infrastructure. The project limits extend along South Main Street, from the Lakeport city limits to the SR 175 extension, and along Soda Bay Road from SR 175 to approximately 0.1 mile west of Manning Creek.

The purpose of the proposed project is to improve traffic flow and pedestrian and bicyclist safety along South Main Street and Soda Bay Road.

1.4 Alternatives

The alternatives considered in this document are the Build Alternative and the No Build Alternative. The Build Alternative would widen the roadway's two existing through-traffic lanes to accommodate a continuous center turning lane and Class II bicycle facility along the paved shoulders. The Build Alternative would also rehabilitate roadway paving, improve roadway drainage, and underground utilities along the corridor. Under the No Build Alternative, which offers a basis for comparison with the Build Alternative, the project alignment would remain as a two-lane roadway without bicycle lanes and utilities would remain above ground.

1.4.1 Proposed Build Alternative

The South Main Street and Soda Bay Road Widening and Bike Lanes Project consists of a 0.5-mile segment of South Main Street, from the Lakeport city limits to the SR 175 extension, and a 0.75-mile segment of Soda Bay Road extending south from SR 175 to approximately 0.1 mile west of Manning Creek (Figure 1.1-2). The project would rehabilitate deficient pavement along the roadway corridor and improve roadway surface drainage. The roadway's two existing through-traffic lanes would be widened to 12 feet to accommodate a new continuous 12-foot-wide center turning lane, and 8-foot-wide paved shoulders would be constructed to also serve as a Class II bicycle facility (Figure 1.1-2). A slight horizontal curve correction would be constructed at the existing curve of Soda Bay Road, approximately 0.45 mile south of the SR 175 intersection. The curve radius would be increased from 230 feet to 550 feet to improve safety.

1.4.1.1 Earthwork

Earthwork for the road widening would consist mostly of fill work, with a small amount of grading to contour driveway intersections and portions of the interior curve of Soda Bay

Road. The existing average width of the paved roadway is approximately 24 feet. The proposed near-term 3-lane roadway expansion project will provide a pavement width of approximately 52 feet. A future 5-lane expansion (not planned for construction with the current project) would require additional widening to provide up to 80 feet of total paved width. The proposed roadway design is consistent with the improvement standards outlined in the City/County MOU discussed in Section 1.1.1. Grading would be approximately 2 feet deep. Other road work would consist of painting lines and installing signage and lighting.

1.4.1.2 Utilities

Above-ground utility lines would be relocated underground and utility poles along both sides of the roadway would be removed. A new utility trench for telephone, television, and electric power providers would be constructed parallel to the west side of South Main Street and Soda Bay Road along with drainage culvert undercrossings and Pacific Gas and Electric Company (PG&E) utility vaults. Existing overhead electric lines would be converted to underground service. Lateral service line trenches would extend out from the roadway, and utility poles would be placed at some locations near the ends of the lateral trenches.

One round concrete pipe culvert and three concrete box culverts would be extended and/or expanded, and one concrete box culvert would be removed and rebuilt at a new location in the project ROW. The current roadside drainage ditches would be backfilled and paved over, which would require installation of new drainage inlets, construction of an auxiliary drainage pipe system, and excavation of new roadside ditches where space permits. A new storm drain would be constructed under the center of the road. Storm water would enter new drainage inlets along the new road, pass through the storm drain under the road, and flow into the box culverts.

In cooperation with the City of Lakeport, the project would include the extension of the existing South Main Street water main. Assuming that appropriate funding is secured, it is anticipated that the planned water main extension would be included as part of the road improvements project. The 12-inch-diameter water main would be constructed in a trench under the center of the road and pass beneath the box culverts. The proposed project includes the installation of this infrastructure to accommodate future water service. The installation of the water main as part of the proposed roadway and utility undergrounding project would ensure that the road would not need to be disrupted another time to install additional infrastructure. No water service connections would be established as part of the proposed project.

As part of the project, the sewer pump station at the north end of the project area would be relocated immediately to the east within the proposed roadway ROW.

1.4.1.3 ROW Acquisitions

ROW acquisitions are required to accommodate the roadway widening, cut/fill embankments, drainage facilities, and utility improvements. The existing County and City ROW corridor is approximately 60-feet-wide and varies slightly in width from parcel to parcel along the route because of existing prescriptive ROW easements. The proposed project would require approximately 80 feet of ROW to accommodate the near-term 3-lane expansion and a possible future 5-lane expansion. As described above in Section 1.4.1.2, lateral service line trenches would extend out from the roadway in some

locations. Not all parcels would be affected. No on-street parking would be provided after project completion. Some of the affected parcels would lose off-street parking, although there were no parcels identified that would lose both on- and off-street parking, as on-street parking is not currently available in every location along the project alignment. Table 2.1.1-1 (Business Parking Impacts) documents the on- and off-street parking issues for these parcels affected by the project improvements. Up to 40 parking spaces (on- and off-street) will be eliminated.

1.4.1.4 Construction

Temporary construction easements would be needed to complete roadway construction, to match the new driveway entrances into the existing driveways, and to connect some of the utility and drainage improvements to existing facilities. Staging areas may be located in the paved Lakeport Auto Movies Theatre parking lot at 52 Soda Bay Road and/or in a paved and fenced lot immediately south of the Jack-In-The-Box restaurant at SR 175, assuming that permission is received from the property owners (Figure 1.1-2). The proposed road widening project would require temporary lane closures during construction that could cause slight delays and additional queuing of vehicle traffic, emergency services, public transit and bicyclists, as well as temporary parking reductions. Temporary lane closures would be necessary in order to underground the utilities along the project alignment. The existing utility poles prevent the widening of the road. Flaggers would manage traffic during temporary lane closures via a two-way traffic control.

Access to businesses and residences along the project alignment would be maintained at all times during construction. Construction activities could result in the temporary closure of an entire driveway if businesses have more than one driveway, as long as it does not prevent access to one or more businesses or residents. Where a business/resident has a single driveway, construction would be staged so as to allow access at all times.

1.4.1.5 Project Schedule

The environmental review process, including all technical studies, field surveys and preliminary design, is scheduled to be complete by spring 2013, and final design is scheduled for completion in 2014. Once environmental review is complete, the County will apply for resource agency permits. A minimum of three months will be required for the 1602 Streambed Alteration Agreement and Section 401 Water Quality Certification (post CEQA), and a minimum of four months will be required to obtain authorization to utilize the 404 Nationwide Permit process following NEPA approval. Right-of-way acquisition would occur in 2014/15, undergrounding of utilities would occur in 2015/16, and road construction would be completed in 2017.

1.4.2 No-Build Alternative

Under the No Build Alternative, the proposed project would not be constructed. The project alignment would remain as a two-lane roadway without bicycle lanes, and utilities would remain above ground. This alternative would not improve traffic flow, safety, or bicycle access along the project alignment, and thus, would not meet the project purpose. The roadway would continue to function as an operationally deficient roadway. The potential effects from operating the operationally deficient roadway include reduced air quality (vehicles turning left into businesses from the travel lane cause reduced traffic flow), reduced safety (left turning vehicles increase rear-end traffic accident potential),

reduced local business revenues/tax generation (poor business access is a deterrence to customer convenience), increased traffic (due to the absence of bike lanes/discouragement of bike travel), and reduced aesthetics (maintenance of overhead utility lines).

1.4.3 Alternatives Considered But Eliminated From Further Discussion Prior to Draft Environmental Document

In addition to the proposed Build and No-Build Alternatives that are addressed in this environmental document, the following alternatives were considered but have been eliminated from further discussion.

1.4.3.1 Option 2 from the Soda Bay Road/South Main Street Corridor Study

Option 2 from the Soda Bay Road/South Main Street Corridor Study would have placed the utilities in a public utilities easement (PUE). A PUE would consist of a five-foot-wide easement on both sides of the roadway ROW, requiring a clear width of 89 feet to accommodate the PUE. By placing the utilities largely under the roadway, the project would minimize the ROW acquisition (maximum 80 feet) needed to accommodate the project. Option 2 was eliminated from further discussion due to increased amount of ROW acquisition needed to accommodate the PUE.

1.4.3.2 Option 3 from the Soda Bay Road/South Main Street Corridor Study

Option 3 from the Soda Bay Road/South Main Street Corridor Study would have placed a four-foot-wide parkway between the street and the sidewalk to serve as a buffer between pedestrians using the sidewalk and motorists on the roadway. The parkway would also accommodate the underground utilities and assist in traffic calming. Installation of a four-foot-wide parkway would require a ROW width of 85 feet. Like Option 2, Option 3 would require more ROW acquisition to accommodate roadway improvements. Maintenance responsibilities and costs associated with the parkway were also considered and determined to be unreasonable. For these reasons, Option 3 was eliminated from further discussion.

1.4.4 Identification of the Preferred Alternative

In July of 2011, the Department formally identified the Build Alternative as the preferred alternative. This decision was made after considering comments made by outside agencies, the public, and the internal Project Development Team. The Build Alternative was chosen as the preferred alternative as it addresses the current problems and concerns with South Main Street and Soda Bay Road.

1.5 Permits and Approvals Needed

The following permits, reviews, and approvals are anticipated to be required for project construction.

Table 1.5-1. Anticipated Permits and Approvals Required

Agency	Permit or Approval
California Department of Fish and Game (CDFG)	The drainages in the project area are regulated by the CDFG under Section 1602 of the Fish and Game Code. Impacts to these drainages would require a Streambed Alteration Agreement from CDFG.
Regional Water Quality Control Board (RWQCB)	Discharges into waters of the U.S. under Section 404 also require a water quality certification from the RWQCB, pursuant to Section 401 of the Clean Water Act. The RWQCB may opt to waive the water quality certification and instead issue waste discharge requirements pursuant to their authority under the Porter - Cologne Act.
United States Army Corps of Engineers (USACE)	Waters of the U.S. are regulated by the USACE under Section 404 of the Clean Water Act. It is expected that the discharges into waters of the U.S. from the project would be authorized under Nationwide Permits 14 – Linear Transportation Projects and 33 – Temporary Construction, Access, and Dewatering.
City of Lakeport Encroachment Permit	For construction of improvements on local roadways within the City of Lakeport.
State Office of Historic Preservation (SHPO)	Project effects on cultural resources require Section 106 clearance (federal) by the SHPO. Review and approval clearance includes determination of eligibility for the National Register of Historic Places, as well as potential effects and mitigation requirements. Likewise, SHPO must review resources under the California Register of Historical Resources criteria for eligibility.

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

This chapter describes 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 conducted for the project, the following environmental issues were considered, but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document:

- Coastal Zone – The project area is not located within the State coastal zone.
- Wild and Scenic Rivers – The project is not located over or adjacent to a wild and scenic river.
- Parks and Recreational Facilities – No public parks, recreation areas, or wildlife or waterfowl refuges are located along the project alignment and none would be adversely affected by the proposed project.
- Growth – This project is not anticipated to encourage unplanned growth. The project is proposed to accommodate existing and projected increases in traffic and would not cause substantial growth outside the growth projected by local and regional planning documents. No new housing, business or population increases would directly result from the proposed project. The project would not result in the conversion of adjacent land uses or provide access to areas previously inaccessible or improve access in ways that would foster local development beyond that which is already planned.

  The project would improve and expand existing utilities, temporarily reduce commute times, and improve access to vacant land within the project vicinity. According to the Community Impact Assessment (LSA Associates 2010) prepared for the proposed project, many of the utility improvements are upgrades of existing utilities and new utilities are not expected to substantially increase utility capacity or accommodate substantial new development. The projected increase in traffic volumes that the proposed project is designed to address would likely negate any commute time reductions over time. According to Caltrans guidelines, a project that may increase accessibility to vacant and underutilized land in an urbanized area should not normally be considered to be growth inducing (Caltrans 1997). Development of such lands (infill) is generally considered to be a benefit to the community because construction on such land generally utilizes infrastructure that is already in place. Both the Lake County and City of Lakeport General Plans contain policies that

support infill development. A lack of available vacant land, public water service and drainage improvements in the project area limits infill development (Lake County 2000). The proposed project would accommodate projected increases in traffic and would enhance public safety, but significant adverse effects related to growth-inducement are not anticipated.

- Community Character and Cohesion –The project is the widening of an existing roadway and would not result in the relocation of any businesses or residences and would not physically divide an established community. The project is not expected to adversely affect community cohesion.
- Relocations – The project would not result in residential or commercial displacements, and therefore, property relocations are not required.
- Environmental Justice – All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,* signed by President Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2012, this was $23,050 for a family of four.

  All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. The Department's commitment to upholding the mandates of Title VI is evidenced by its Title VI Policy Statement, signed by the Director, which can be found in Appendix B of this document.

  The purpose of the project is to improve traffic operations and to improve public safety. No property relocations would be required, although the roadway widening would result in a loss of property frontage along the roadway. In addition, some businesses would lose parking as a result of the ROW acquisition, as described in Section 2.1.1. Census data (2000) for the study area, which is summarized in the Community Impact Assessment (LSA Associates, Inc. 2010) prepared for the project, indicates that the racial make-up consists predominantly of non minority populations (91 percent white); therefore, the project would not have a disproportionately high or adverse effect on minority populations. The 2000 census data indicates that the percentage of residents in the study area living below the federal poverty line is 13 percent, which is higher than the County average of approximately 5 percent. However, the project's environmental impacts are avoided or minimized throughout the entire project area via the measures included in this IS/EA, and the benefits associated with the project (e.g., visual benefit of undergrounded utilities; improved operation and safety along the project alignment for vehicles, bicyclists, and pedestrians; and improved business access) would be distributed equitably for all segments of the community. Furthermore, letters soliciting input on the project from all residents and businesses located along the project alignment were distributed by the County in 2009 during the preparation of the Community Impact Assessment. Four comment letters were received that generally expressed support for the proposed project and raised questions and concerns pertaining to ROW acquisitions and construction impacts. As described further in Chapter 3, a public open house/informational meeting was held in May 2011 during the public review period

for this IS/EA. Approximately fifteen members of the community attended. Verbal questions included queries about the project design, ROW acquisition, and impacts to existing driveways and property frontage. Two comment cards were filled out and submitted at the information meeting. All comments have been addressed in the Response to Comments Section (3.5). Based on the above discussion and analysis, the project will not cause disproportionately high and adverse effects on any minority or low-income populations as per EO 12898 regarding environmental justice.

- Visual/Aesthetics – The project is not located along or adjacent to an officially designated scenic highway. Implementation of the project would underground existing overhead utility lines, resulting in a beneficial effect to the visual character of the project area. Other roadway improvements would be largely contained within the existing horizontal and vertical alignment and would not have a considerable adverse effect on the overall visual quality of the project area.
- Traffic and Transportation/Pedestrian and Bicycle Facilities – The proposed project is intended to improve traffic flow and provide bicycle and pedestrian facilities. The addition of a center turning lane would remove left-turning traffic from the travel lanes and reduce delays to through traffic and also serve as a refuge lane for traffic turning left out of a driveway. Paved 8-foot-wide shoulders on either side of the road would be designated as Class II bicycle lanes, serving to improve accessibility and safety throughout the project area for pedestrians and bicyclists. As detailed in the Traffic Operational Analysis (TJKM Transportation Consultants 2008), the project itself would not generate additional vehicle trips, yet it would improve safety, mobility, and access for existing traffic and the anticipated increase in traffic along the alignment due to a projected increase in population and jobs through general plan build-out. As described in Section 2.1.4, Utilities/Emergency Services, a detailed Traffic Management Plan (TMP) would be included as part of the Contractor's specification package to manage temporary construction delays due to one-lane traffic controls. The TMP would address all traffic-related aspects of construction including, but not limited to, the following: traffic handling during each stage of construction, emergency service provider access, pedestrian safety/access, and bicycle safety/access. A component of the TMP would involve public dissemination of construction-related information through notices to the neighborhoods, press releases, and/or the use of changeable message signs. No roadway or driveway access to residences or businesses is expected to be blocked during the construction of the project.
- Air Quality – The screening process as outlined in the "Transportation Project-Level Carbon Monoxide Protocol" (Institute of Transportation, U.C. Davis, 1997) was used to determine that the proposed project would not impact the air quality of the County because of the following reasons: the project would not increase the number of vehicles operating in cold start mode; traffic volumes would not increase considerably; and traffic flow would not worsen. Construction best management practices (BMPs) would be implemented in accordance with Lake County Air Quality Management District (LCAQMD) requirements. The project is located in an attainment/unclassified area for all current federal and state air quality standards. The proposed improvements would not have a substantial influence on the capacity of the roadway or the composition of traffic patterns. For these reasons, the project is exempt from any regional conformity analysis per 40 Code of Federal Regulations (CFR), Section 93.126, Table 2. Exemptions include Transportation Enhancement

Activities, Bicycle and Pedestrian Facilities, Pavement Resurfacing and/or Rehabilitation, and Safety Improvement Program Projects.

2.1 HUMAN ENVIRONMENT

2.1.1 Land Use

Affected Environment

The information below is from the Community Impact Assessment (LSA Associates, Inc. 2010) prepared for the project.

The primary land uses along the project alignment are commercial and light industrial, including automobile sales, auto part shops, gas stations, agricultural services and supplies, construction supplies and warehouses. Other land uses include a waste transfer and disposal site, a veterinary clinic, single family houses, vacant lots, agricultural land, and Manning Creek.

Environmental Consequences

The proposed project would require ROW acquisition along the project alignment. State and federal constitutions recognize the need for public agencies to purchase private property for public use, and provide appropriate safeguards to accomplish this purpose. State and federal constitutions and the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended, authorize the purchase of private property for public use and assure full protection for the rights of each citizen.

The existing County and City ROW corridor is approximately 60 feet wide but varies slightly in width parcel-by-parcel along the route as a result of existing prescriptive ROW easements. The project would generally require 80 feet of ROW to accommodate the 3-lane expansion. ROW acquisitions would be required immediately adjacent to both sides of the roadway alignment in order to accommodate the roadway widening, cut/fill embankments, drainage facilities, and utility improvements (i.e., approximately 10 additional feet on either side of the roadway). Approximately fifty properties would be affected by ROW acquisitions.

Project improvements (e.g., roadway widening to accommodate the center turn lane and paved shoulders/bike lanes) would require ROW acquisitions along the roadway edge, which would eliminate existing on-street parking along the entire alignment. Project improvements would also encroach into the adjacent parcels and will impact off-street parking areas in some locations. None of the ROW acquisitions will have an effect on the business operations (except for parking), as the takes do not encroach into any building area or have an effect on the business functionality.

There would be no on-street parking after project completion. The existing on-street parking would be used to accommodate the proposed bicycle lanes. In addition, a few businesses along the project alignment would also lose off-street parking to accommodate the proposed project (Table 2.1.1-1). Three businesses would lose off-street parking, which is regulated by the County Zoning Ordinance. Of these three businesses, two would lose approximately 10 off-street parking spaces each, and one business would lose approximately 2 off-street parking spaces. A total of approximately

22 off-street parking spaces would be lost along the project alignment. No other off-street parking areas would be affected along the project alignment.

The County Zoning Ordinance requires a specified number of off-street parking spaces according to zoning designation and building size. The affected properties are zoned as C3 (Service Commercial) and MP (Industrial Park; Table 2.1.1-1). The C3 District requires one parking space for every 600 square feet of building space. The MP District requires one parking space for every 600 square feet of building space for retail and service uses; one parking space for every 2,500 square feet of building space for warehousing uses; one parking space for every 250 square feet of building space for incidental and administrative offices; at least four parking spaces and at least one parking space for every 600 square feet of building space and one parking space for each employee on the shift having the largest number of employees for manufacturing uses; and at least four parking spaces in addition to those required above for heavy commercial/manufacturing uses. Article 46 of the County Zoning Ordinance does not permit off-site (on-street) parking to be counted to meet the minimum parking requirements; therefore the loss of on-street parking would not impact parking requirements for businesses along the project alignment. County planning staff determined that the loss of on-site (off-street) parking would not cause any of the affected businesses to fall out of compliance with the County Zoning Ordinance (Articles 20 and 23).

As shown in Table 2.1.1-1, an estimated total of 40 on- and off-street parking spaces for businesses would be lost along the project alignment, which equates to an approximately 22 percent decrease in overall parking availability. The loss of approximately 40 parking spaces for businesses (18 on-street spaces and 22 off-street spaces) would not represent a substantial reduction in existing parking supply. Each business/parcel that is subject to off-street parking losses as a result of the project would have sufficient remaining off-street parking spaces to meet zoning requirements, i.e., the project would not cause any of the businesses to fall out of compliance with the parking requirements (i.e., number of spaces) established by the County, as described above. Due to the high concentration of businesses with available parking along the project area, it is not expected that customers would be inconvenienced by a lack of off-street parking. Although demand for parking could increase over time due to projected increases in traffic volume along the project alignment, the increase in demand is not expected to exceed the supply of parking spaces. It is acknowledged that on-street parking would be eliminated along the entire project alignment; however, the loss of on-street parking would not adversely effect operations or access for agricultural properties along Soda Bay Road or the small number of residential properties located in the project area.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the following minimization measures, which have been incorporated into the project, would reduce or eliminate the impacts due to property acquisitions for the proposed project:

- All affected business owners and residents would be fully compensated for the ROW acquisitions in accordance with applicable federal and state ROW acquisition laws. The compensation would be at a fair market value, except for properties that have public ROW “dedications” as part of a use permit or development permit. Properties

with “dedications” would be compensated at fair market value for any additional ROW acquisition that is not part of previous dedications. Fair market value corresponds to the value the property would have if sold privately on the open market. Compensation would also be provided for any loss of market value to the remainder of the property.

- Compensation would be based on an evaluation performed by a licensed State appraiser. California law provides that the property owner would receive a copy of the appraisal or of the valuation upon which the offer of compensation is based.

Table 2.1.1-1. Business Parking Impacts

APN	Street Address	Business	Zoning	Existing Parking (#)		Loss of Parking		# of off-street Spaces Required[1]	Residual Off-street Parking Spaces in Excess of Ordinance
				On-street	*Off-street*	*Number*	*Type*		
005-052-03	2335 South Main St.	Carlton Tires	C3	3	6 to 10	3	On-street	15[2]	0
005-052-25	2440 South Main St.	Airport Auto Center	C3	10	>20	10	On-street	14	>6
005-053-18	2575 South Main St.	Holder Ford Mercury	C3	2	>50	2	On-street	40	>10
008-001-01	2598 South Main St.	Strohmeir Auto Center	C3	0	>30	10	Off-street	20	>0
008-001-02	2600 South Main St.	DFM Car Stereo; Fast Stop; Magic Interiors	C3	0	>30	10	Off-street	18	>2
008-003-12	2530 South Main St.	Main Street Veterinary Clinic	C3	3	6 to 10	3	On-street	11[2]	0
008-019-60	109 Soda Bay Rd.	Henry Service & Repair	MP	0	10	2	Off-street	8	0

Note:
[1] Per Lake County Zoning Ordinance Articles 20 and 23; Article 46 of the County Zoning Ordinance does not permit on-street parking to be counted to meet the minimum parking requirements; therefore the loss of on-street parking would not impact parking requirements for businesses along the project alignment.
[2] Currently, this business is not in compliance with the County's Ordinance for off-street parking; however, only on-street parking would be eliminated for this business as part of the proposed project, such that the project would not cause the business to be further out of compliance with the County's off-street parking ordinance.

2.1.2 Consistency with State, Regional, and Local Plans

Affected Environment

The information below is from the Community Impact Assessment (LSA Associates, Inc. 2010) prepared for the project.

The relevant planning documents for the Study Area include the Lake County General Plan Update (2008), the City of Lakeport General Plan (2009), the Lakeport Area Plan (2000), the Regional Transportation Plan (2005), and the Lake County Regional Bikeway Plan (Dow & Associates 2006).

The portion of the project alignment in unincorporated Lake County is designated in the County General Plan primarily as Service Commercial, with smaller areas of Industrial, Agriculture, and Resource Conservation (Manning Creek) designations. The City of Lakeport General Plan land use designation for the portion of the project alignment within the City limits is Major Retail.

Environmental Consequences

The proposed project would not change the County or City land use or zoning designations in the project area, and is compatible with existing land uses along the project alignment. The proposed project would facilitate access to businesses and residences along the project alignment by improving traffic flow, and providing paved 8-foot-wide shoulders on either side of the road for non-motorized transportation. The paved shoulders would form part of a proposed 7.95 mile Class II bicycle lane facility that would run along South Main Street and Soda Bay Road from the intersection of South Main Street and Lakeport Boulevard to Clear Lake State Park.

The proposed project is identified in the Regional Transportation Plan (Dow & Associates 2005), and the Lake County Regional Bikeway Plan (Dow & Associates 2006) as a high priority transportation improvement project. As described in the *Community Impact Assessment*, the proposed project is also consistent with the goals and policies contained in these documents and in the Lake County (2008) and City of Lakeport (2009) General Plans, and the Lakeport Area Plan (2000), which promote maintenance of traffic flow and level of service on roadways, roadway safety, undergrounding of utilities, and provision and improvements of bicycle and pedestrian facilities.

The County and City general plans also contain goals and policies to protect the human and natural environment, including reduction of natural hazards and hazardous materials, noise reduction and minimization, protection of air and water quality, reduction of greenhouse gas (GHG) emissions, energy conservation and waste reduction, protection of biological, cultural and visual resources, and maintenance of community facilities and services. Adherence to the minimization measures and recommendations in this Initial Study/Environmental Assessment (IS/EA) would ensure that the proposed project would be consistent with the relevant goals and policies protecting the human and natural environment.

Avoidance, Minimization, and/or Mitigation Measures

None required.

2.1.3 Farmlands/Timberlands

Regulatory Setting

NEPA and the Farmland Protection Policy Act (FPPA, 7 United States Code (USC) 4201-4209; and its regulations, 7 CFR Part 658) require federal agencies, such as the Federal Highway Administration (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 Farmland of Statewide or Local Importance.

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 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

This section summarizes information contained in the Farmland Conversion Assessment (LSA Associates, Inc. 2008) and the Community Impact Assessment (LSA Associates, Inc. 2010) prepared for the project.

The majority of land in the County is classified by the Farmland Mapping and Monitoring Program (FMMP) as “Other Land” or “Grazing Land”. However, areas of Prime Farmland are designated north of Clear Lake and south of Lakeport adjacent to the lake (FMMP 2006). As of 2007, the County had 49,876 acres of farmland under a Williamson Act Contract, or approximately 35 percent of its farmland.

As of 2007, the County contained 880 farms totaling 144,037 acres. The average and median farm sizes in the County were 147 and 25 acres, respectively. The average market value of a farm in Lake County was $1,349,648. Farms in Lake County are used primarily for wine and grape production; orchard corps, such as pears and walnuts; and nursery production. Table 2.1.3-1 contains a list of agricultural products in the County, and accompanying revenue, for 2008.

Table 2.1.3-1. Lake County Agricultural Products and Revenue in 2008

Agricultural Product	Revenue in 2008
Grapes, Wine	$34,226,955
Pears	$15,508,753
Nursery Production	$5,774,193
Field and Seed Crops	$1,984,500
Livestock Production	$1,895,400
Walnuts	$1,248,000
Livestock and Poultry Products	$250,739
Vegetable Crops	$219,767
Timber Harvest	$0
Total	$61,186,816

Source: Lake County Farm Bureau. 2008 Crop Report.

According to the FMMP, the City of Lakeport is classified as Urban and Built Up Land and contains no agricultural land.

One parcel of active farmland (APN 008-019-53) and one parcel of inactive farmland (APN 008-019-20) are located adjacent to Soda Bay Road along the southeastern border of the project site. Both parcels are designated by the United States Department of Agriculture (USDA) as Prime Farmland, and neither parcel is under a Williamson Act contract. The crops cultivated on the active parcel include walnuts, grapes and pears. The County General Plan land use designation for the active farmland parcel is Agriculture and Service Commercial for the inactive parcel. The Lake County Zoning Ordinance indicates agricultural zoning for both parcels. No other parcels are located along the project alignment that are either currently used or zoned for agricultural purposes (note: the aerial photograph used in Figure 1.1-2 was taken in 2006; agricultural uses on APN 008-001-24 have since been terminated).

Environmental Consequences

The project would result in the irreversible direct conversion of 0.20 acre of active farmland (APN 008-019-53) and 0.14 acre of inactive farmland (APN 008-019-20), for a combined total of 0.34 acre. Direct impacts include the permanent ROW acquisition required for the roadway widening along Soda Bay Road. The direct impact resulting from the widening of the road is considered a permanent impact.

In addition, the project would result in the indirect conversion of 0.48 acre of active farmland and 0.31 acre of inactive farmland, for a combined total of 0.79 acre. Indirect impacts include the areas that would be rendered unusable for farmland due to potential access restrictions during construction and as a result of utility undergrounding. Of the indirect impacts, the potential access restriction due to construction is considered a temporary impact, and the land converted as a result of the utility undergrounding is considered a permanent impact because these areas may be subject to a utility easement post-construction.

Thus, considering both the direct and indirect impacts described above, a maximum of 1.13 acres of land would be converted to a non-agricultural use. Implementation of the proposed project would affect soils designated for various crop production, defined by the USDA and NRCS as having prime agricultural significance.

The loss of these agricultural lands was evaluated based on the USDA, NRCS Farmland Conversion Impact Rating System (Form AD-1006, Appendix D). The total “relative value of farmland” rating provided by the NRCS (Part V of Form AD-1006) is 81 points, and the total “site assessment” rating (Part VI of Form AD-1006) is 50 points, for a combined total of 131 points (Part VII of Form AD-1006). NRCS scores below 160 points do not require examination of alternatives capable of reducing the amount of farmland conversion. Sites receiving a total score of less than 160 points are given the minimal level of consideration for protection.

In light of the minor loss of agricultural lands (conversion of lands to urban uses), and a rating below 160 points from the Farmland Conversion Impact Rating Assessment Form AD-1006, the road widening project would not considerably affect agricultural soils or productivity according to NRCS thresholds.

As noted above, while some loss in agriculturally-productive and/or zoned lands is expected from implementing project improvements, the losses all occur along the edge of the roadway and are “sliver” losses. These losses occur in a very narrow strip adjacent to the roadway and will not have any substantial effect on the agricultural operations for those affected

parcels. There should be no change in productivity related to project impacts. None of the existing trees in the orchard associated with APN 008-019-53 will be taken. There are no current agricultural resources on APN 008-019-20; therefore, none will be impacted by the project. Likewise, access to all parcels will remain throughout project construction and post-construction. Farming equipment access to productive agricultural parcels will remain unimpeded.

Avoidance, Minimization, and/or Mitigation Measures

None required.

2.1.4 Community Facilities and Services/Utilities/Emergency Services

This section summarizes the information contained in the Community Impact Assessment (LSA Associates, Inc. 2010) prepared for the project.

Affected Environment

Community Facilities and Services

As noted on Figure 4 and Page 17 of the Community Impact Assessment, local community facilities and services (specifically schools, libraries, museums and parks) are located within the urban area of the City of Lakeport. These facilities are well to the north of the project roadway corridor (nearly a mile or more) and are not influenced by the current roadway improvements. No community facilities or services are located along the project roadway segment.

Utilities

The largest source of water in the project area is Clear Lake, which provides water supplies for City of Lakeport municipal use just north of the project site. Groundwater is the second largest source of water in the project area. Water is drawn from the Scotts Valley Groundwater Basin, which overlaps the northern project area along South Main Street, and the Big Valley Groundwater Basin, which overlaps the central and southern project area along South Main Street and Soda Bay Road. The Lake County Environmental Health Department regulates groundwater wells. Sewer service is provided by the County Sanitation District, and wastewater is discharged into the City of Lakeport collection system and treated at the City's wastewater treatment facility. Storm water runoff in the project area drains into Clear Lake. Solid waste is managed by the Waste Management Division of the Lake County Public Services Department, which operates the Eastlake Sanitary Landfill in Clearlake and administers refuse collection contracts with two franchise haulers for the unincorporated areas of the County: Lake County Waste Solutions transfer station and recycling center, located at 230 Soda Bay Road, and Southlake Refuse and Recycling, located within the Eastlake Sanitary Landfill. Within the project area, electricity is provided by PG&E, gas is provided by numerous propane gas companies, and telephone service is provided by AT&T.

Along the project alignment, South Main Street has curbs and gutters in some stretches with no improvements along the remainder. Most improved portions of South Main Street are within the City. Soda Bay Road has no curbs and gutters. The entire corridor contains utility poles on both sides of the street with open drainage ditches adjacent to the roadway in most areas.

Police Services

The County Sheriff's Office is located at 1220 Martin Street in Lakeport. As of 2007, the County Sheriff Department had 182 personnel, including 71 sworn officers. Additional personnel are associated with the Sheriff/Coroner's Office, Central Dispatch, Bailiffs, Marine Patrol, County Correctional Facility, and the Office of Emergency Services (OES). The correctional facility and OES are in two separate locations north of the project area. The OES works extensively with several County departments, local public agencies and utilities to develop and coordinate emergency response procedures.

As of 2006, the Lakeport Police Department, located at 916 North Forbes Street in Lakeport, included 13 sworn police professionals, and 4 civilian police professionals.

Fire Protection and Emergency Services

Six fire districts and the California Department of Forestry and Fire Protection (CDF) provide fire protection services throughout the County. The project area is in the Lakeport District, which has one fully-staffed station at 445 North Main Street, Lakeport, and one volunteer-staffed station at 3600 Hill Road East, Lakeport. The Lakeport District is a Local Responsibility Area because fires and fire hazards are managed locally, as opposed to a State Responsibility Area as managed by the CDF.

The Lakeport Fire Protection District provides fire protection and emergency medical services for the City of Lakeport and surrounding areas with a total coverage area of 42.5 square miles. The district employs six paid firefighters and 18 volunteers. The district provides its own ambulance service.

Environmental Consequences

The proposed project would not cause any long-term adverse operational impacts to community facilities and services. Project operation would positively impact community facilities and services by decreasing emergency response times along the project alignment, improving and expanding pedestrian and bicycle facilities, and decreasing transit time (including public transit) to schools, libraries, parks, museums and other community facilities in the project vicinity. As all community facilities and services are located in the City of Lakeport, to the north of the project corridor, there will be no significant impact from project operations (during construction or over the long-term) on those facilities/services.

The proposed road widening project would require temporary lane closures during construction that could cause slight delays and additional queuing of vehicle traffic, including emergency services. Temporary lane closures are necessary in order to underground the utilities along the project alignment because the existing utility poles prevent the widening of the road. Traffic would be managed during the temporary lane closures via a two-way traffic control with the use of flaggers. Emergency vehicles would be expedited through the construction zone, and emergency service providers would be informed of the project so they could choose alternate routes as needed. All impacts related to lane closures would cease after project completion.

The utility underground conversions would be constructed in such a way that there would not be lengthy service disruptions. Gas and electric service may be interrupted for a short (approximately two hour) window of time during the switch from overhead to underground service.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures have been incorporated into the project:

Design, construction, and inspection of any required utility work would be completed in accordance with the County's standards and procedures. The County would coordinate with any affected service provider to ensure minimum disruption of utility services or operations and that all utility work is performed in accordance with appropriate requirements and criteria.

A detailed TMP would be included as part of the Contractor's specification package to manage temporary construction delays due to one-lane traffic controls. The TMP would address all traffic-related aspects of construction including, but not limited to, the following: traffic handling during each stage of construction, emergency service provider access, pedestrian safety/access, and bicycle safety/access. A component of the TMP would involve public dissemination of construction-related information through notices to the neighborhoods, press releases, and/or the use of changeable message signs. No roadway or driveway access to residences or businesses is expected to be blocked during the construction of the project.

2.1.5 Cultural Resources

Regulatory Setting

"Cultural resources" as used in this document refers to all historical and archaeological resources, regardless of significance. Laws and regulations addressing 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 (National Register). 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 and interested public the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, FHWA, State Historic Preservation Officer (SHPO), and Caltrans went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. 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 are also addressed under Section 4(f) of the U.S. Department of Transportation Act, which regulates the "use" of land with historic properties.

Historical resources are considered under CEQA, as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources (California Register). PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register listing criteria. It specifically requires Caltrans to inventory state-owned structures in its rights-of-way.

Affected Environment

This section reports the results of the Archaeological Survey Report (ASR) (LSA Associates, Inc. 2009), the Historical Resources Evaluation Report (HRER) (LSA Associates, Inc. 2009), the Extended Phase I Report (XPI) (LSA Associates, Inc. 2010), and the Phase II Archaeological Evaluation Report (AER) (LSA Associates, Inc. 2010) which were prepared for the project. These reports address the requirements of the January 2004 PA between the FHWA, the Advisory Council on Historic Preservation, the California SHPO, and Caltrans: *Regarding Compliance with Section 106 of the NHPA, as it Pertains to the Administration of the Federal-Aid Highway Program in California*.

The project's Area of Potential Effects (APE) consists of ROW owned by the City, County, and Caltrans, and approximately 5.7 acres of private land that would be acquired for the project. The APE encompasses an Area of Direct Impacts (ADI), an Archaeological APE, and an Architectural APE:

- The ADI consists of the horizontal and vertical extent of project ground disturbance;
- The Archaeological APE consists of the ADI and the entirety of archaeological sites in and adjacent to the ADI; and
- The Architectural APE consists of the ADI and the entirety of parcels that contain built environment resources whose settings may be affected by the project.

The 46.32-acre Archaeological APE is 1.25 miles long and generally 100 feet wide along South Main Street north of the SR 175 extension and Soda Bay Road south of the SR 175 extension. The cultural resources studies included background research (records searches and literature and archival research), an archaeological sensitivity analysis, archaeological and historical architectural field surveys, presence/absence and evaluation excavations, laboratory studies, and consultation with potentially interested parties.

The background research and field studies indicate that the APE is of high archaeological sensitivity. The studies conducted for the project identified the following prehistoric archaeological sites within or directly adjacent to the APE:

- CA-LAK-53 and Bennyhoff's 53, a dense deposit of culturally-flaked stone;
- CA-LAK-215, a scatter of flaked- and ground-stone tools;
- CA-LAK-216, a midden[2] deposit with flaked- and ground-stone tools;
- CA-LAK-867, a midden deposit with culturally-flaked stone;
- CA-LAK-2077, a moderately dense deposit of stone tool manufacturing debris possibly associated with CA-LAK-215, CA-LAK-216, and CA-LAK-2082;
- CA-LAK-2078, a low-density scatter of stone-tool manufacturing debris and ground stone;
- CA-LAK-2079, a small, low-density deposit of stone-tool manufacturing debris in a highly disturbed context;
- CA-LAK-2080, a low-density scatter of stone-tool manufacturing debris;
- CA-LAK-2081, a sparse deposit of stone-tool manufacturing debris; and

[2] Midden consists of culturally altered soils, typically containing domestic and subsistence related debris, including shell and bone.

- CA-LAK-2082, a midden deposit with flaked-stone tools and stone tool manufacturing debris.

An XPI study was conducted to identify the presence or absence and extent of previously recorded archaeological deposits and possible unrecorded archaeological deposits within the ADI. The pre-field background research and archaeological investigations determined that site CA-LAK-2081 was not within the project APE, and CA-LAK-215 and CA-LAK-216 are outside of the ADI.

A Phase II AER was prepared to document the results of National and California Register evaluations for those portions of CA-LAK-53, CA-LAK-2077, CA-LAK-2078, CA-LAK-2080, and CA-LAK-2082 within the ADI. Cultural resources eligible for the National Register are "historic properties" as defined in 36 CFR §800. Based on the results of the Phase II archaeological investigations, those portions of CA-LAK-53, CA-LAK-2078, CA-LAK-2080, and CA-LAK-2082 within the ADI were determined to not be eligible for listing in the National Register or the California Register. That portion of CA-LAK-2077, which is located within the project's ADI, was determined to be eligible for listing in the National Register and the California Register for its data potential, Criterion D.

Phase II archaeological investigations that were conducted to determine the National and California Register eligibility of sites in the APE were confined to areas that could be accessed. As a result, potions of CA-LAK-53 and CA-LAK-2079 as well as sites CA-LAK-867 and Bennyhoff's 53 could not be addressed as part of the Phase II investigations.

An architectural historian reviewed the Architectural APE to identify potentially affected historical architectural resources. The Architectural APE consists of all properties within and adjacent to a 0.5-mile segment of South Main Street from the City limits to the SR 175 extension and a 0.75-mile segment of Soda Bay Road, south from the SR 175 extension to approximately 0.1 mile west of Manning Creek. Ten architectural properties within the APE are currently 50 years old or older or would be 50 years old when project construction begins. These ten architectural properties were evaluated and found not to meet any of the criteria for listing in the National Register or the California Register. All of these architectural properties are exempt from further consideration under the Section 106 PA.

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 CA Public Resources Code (PRC) 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 Brandon Larsen, Senior Environmental Planner, Office of Local Assistance 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.

Environmental Consequences

Caltrans consulted with the SHPO to obtain concurrence on the eligibility of historic properties located within the APE for the National Register. A concurrence letter from the SHPO that supports the findings summarized in this IS/EA was received on February 3,

2011. The SHPO concurred with Caltrans that the evaluated portion of prehistoric archaeological site CA-LAK-2077 contributes to the site's eligibility for listing in the National Register under National Register Criterion D as it can yield information important in prehistory (36 CFR 60.4). The portions of other archaeological sites that have been identified and evaluated in the ADI to date do not contribute to these sites' eligibility for listing in the National Register.

Based on consultation conducted between Caltrans and the SHPO, the portions of archaeological sites CA-LAK-53, Bennyhoff's 53, CA-LAK-867, and CA-LAK-2079 not evaluated during previous phases of work are assumed to contribute to these sites' eligibility for listing in the National Register for purposes of this project. Those portions of CA-LAK-2081, CA-LAK-2082, CA-LAK-2077, CA-LAK-2079, CA-LAK-867, CA-LAK-53, Bennyhoff's 53, and CA-LAK-2080 that were not evaluated during the archaeological investigations and are outside of the project's ADI would also be assumed to contribute to these sites' eligibility for the National and California Register, and they would be protected from the effects of the project through the establishment of Environmentally Sensitive Area (ESA) fencing.

The cultural resource studies for the project have identified CA-LAK-2082 as being of special significance to the Big Valley Rancheria Band of Pomo Indians. Consultation with the Rancheria is ongoing to identify their specific concerns and the appropriate measures for protecting this cultural site from adverse effects during project construction. CA-LAK-2082 would be appropriately protected to avoid adverse effects from project activities by ESA fencing, and effects to the site are not anticipated.

Caltrans has determined that CA-LAK-53, Bennyhoff's 53, CA-LAK-867, CA-LAK-2077, and CA-LAK-2079 would be affected pursuant to PA Stipulation IX.B. FHWA has determined that the undertaking would have an Adverse Effect on historic properties pursuant to Section 106 PA Stipulation X.C and, through the authority delegated to Caltrans, has consulted with the SHPO regarding the resolution of adverse effects, pursuant to Section 106 PA Stipulation XI, 36 CFR 800.6(a), and 800.6(b)(1). Effects to these aforementioned sites are considered adverse because eligible portions of these five sites would be destroyed by ground-disturbing activities. Adverse effects to these sites cannot be avoided by the project as they are adjacent to and possibly beneath South Main Street and would be affected by widening of the roadway and construction of utilities.

Avoidance, Minimization, and/or Mitigation Measures

The following mitigation measures would reduce the cultural resources impacts of the project:

Pursuant to 36 CFR §800.6(c), a Memorandum of Agreement (MOA) has been developed to address treatments for historic properties in the APE and the evaluation and potential mitigation for both known archaeological sites and potential late discoveries located within the project's ADI. The MOA has been developed between the County, City, Big Valley Rancheria Band of Pomo Indians, Caltrans District 1, and the SHPO to implement protection and mitigation procedures for any as-yet-unidentified cultural resources eligible for the National Register that may be in the ADI.

An Historic Property Treatment Plan (HPTP) has been developed in conjunction with the MOA for implementing specific archaeological site evaluation and treatment measures for cultural resources. The HPTP has been developed and implemented through consultation among the SHPO, County, City, Caltrans, and the Big Valley Rancheria. At a minimum, the HPTP contains:

- An archaeological construction monitoring plan;
- A treatment plan for late discoveries encountered during the construction of the project;
- Methods and procedures for mitigation of project adverse effects to archaeological sites;
- An ESA action plan that would be implemented during the construction of the project to protect adjacent archaeological sites from the effects of the construction of this project; and
- Curation procedures for all archaeological materials that would be recovered during the mitigation phase of this project.

Procedures for the treatment of unanticipated human remains would be in accordance with California Health and Safety Code §7050.5, PRC §§ 5097.94 and 5097.98, and done in consultation with the Big Valley Rancheria Band of Pomo Indians.

CEQA Assessment

The implementation of the phased HPTP would substantially lessen the significant impacts on the environment under CEQA that would otherwise occur if the project were approved without such measures. The impacts would be lessened through the use of professional archaeological practices to recover the important scientific data contained in significant archaeological deposits, thereby minimizing their material impairment by project activities. The recovery of such information would realize the potential of an eligible resource to convey its archaeological significance, and offset the destruction of the physical qualities that justify its eligibility for inclusion in the National Register and/or the California Register. The implementation of the HPTP, particularly the completion and dissemination of any Data Recovery Reports and public outreach to communicate the significance of historic properties in the APE (as described in the HPTP), completes the archaeological portion of Section 106 compliance and CEQA mitigation commitments.[3]

2.2 PHYSICAL ENVIRONMENT

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The FHWA requirements for compliance are outlined in 23 CFR 650 Subpart A.

In order to comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development

[3] Caltrans Standard Environmental Reference, Vol. 2: Cultural Resources, Chapter 5 Prehistoric Archaeological Resources: Identification, Evaluation and Treatment, 5-8 Archaeological Data Recovery (Phase III). URL: <http://www.dot.ca.gov/ser/vol2/chap5.htm>. Accessed on February 2, 2011.

- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values impacted by the project

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

In Lake County, development projects are reviewed to determine if they are within a Federal Emergency Management Agency (FEMA) mapped floodplain. When developed within the FEMA mapped floodplain, new development and divisions of land are required to minimize flood risk to structures, risk to infrastructure, and ensure safe access during flood conditions. Lake County standards for culverts conveying cross drainage at roadways recommend that the culverts be sized to convey the peak flow during the most probable 25-year flood event without overtopping the road.

Affected Environment

This section, in part, summarizes the information contained in the Drainage Technical Memorandum (Quincy Engineering, Inc. 2011) and Summary Floodplain Encroachment Report (Quincy Engineering, Inc. 2010) prepared for the project.

The City and County have a long history of flooding. Portions of the County adjacent to Clear Lake and the areas adjoining the principal water tributaries to the lake have experienced frequent inundation and are identified by FEMA as 100-year flood zones.

The floodplain within the project area is located on Panel 493 of 1000 from the effective Flood Insurance Rate Map (FIRM) for Lake County, dated September 30, 2005 (Figure 2.2.1-1). The project is located in a 100-year floodplain where the roadway crosses over the Todd Road culvert (i.e., box culvert #2) and an unnamed tributary to Manning Creek (i.e., box culvert #3). These creeks continue underneath the roadway through concrete box culverts. Figure 2.2.1-1 shows the location of the box culverts that are located in 100-year floodplain areas. All other culverts are located outside of the floodplain.

EXCERPT FROM FLOOD INSURANCE RATE MAP
Panel No. 06033C0493D & 06033C0494D
Index Dated September 30,2005

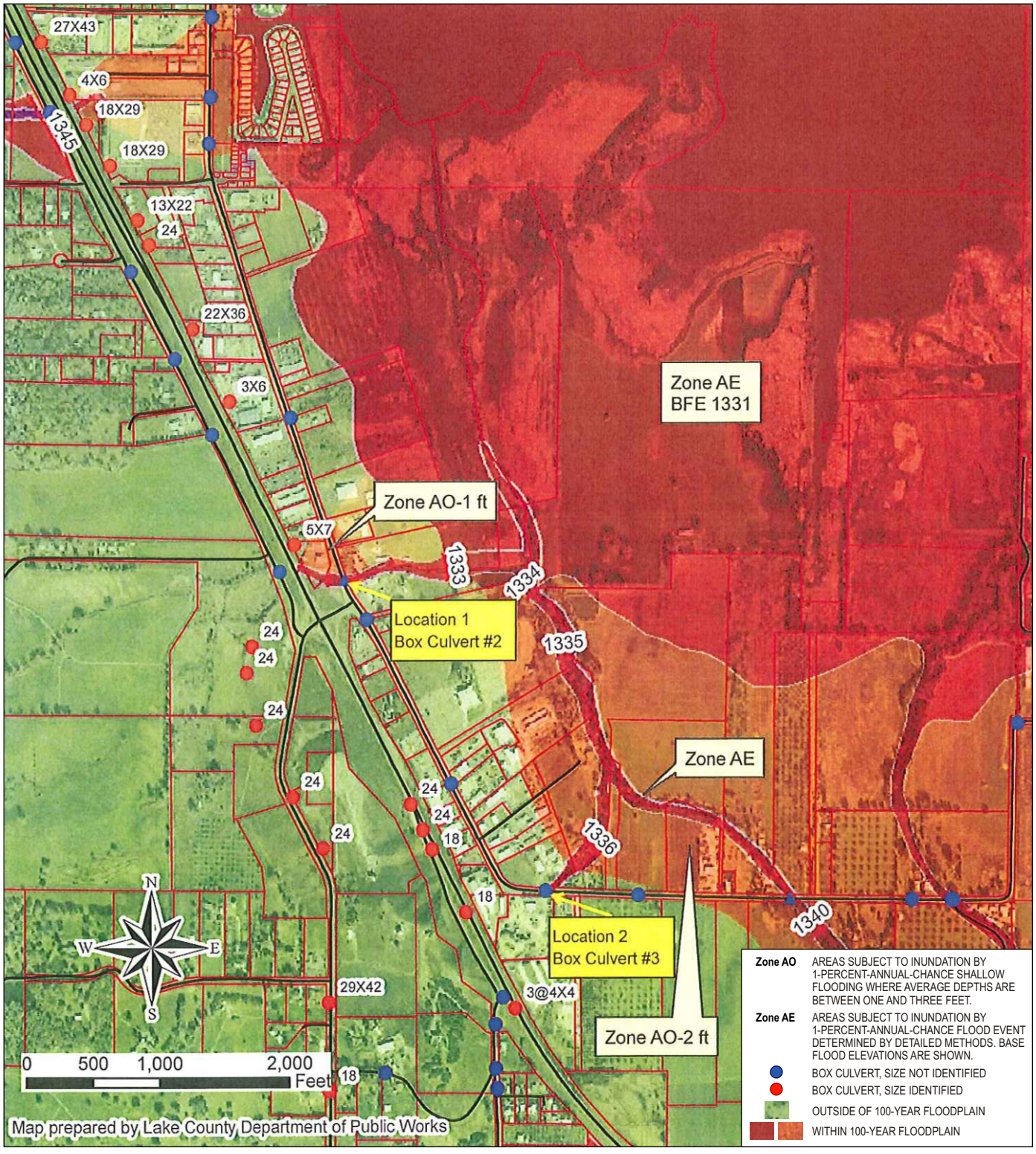

FIGURE 2.2.1-1

South Main Street and Soda Bay Road
Widening and Bike Lanes Project

Location of Floodplain and Box Culverts

SOURCE: LAKE COUNTY DEPARTMENT OF PUBLIC WORKS

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Proposed drainage system improvements involve replacing the existing culverts to accommodate the new roadway geometry and increased storm water runoff from the proposed project.

The area at box culvert #2 is identified on the FEMA Flood Insurance Rate Map (FIRM) as Zone AE (base flood elevations for the 100-year flood event are known - Figure 2.2.1-1). The FIRM in this area shows the drainage leaving the channel and flooding across South Main Street to the northeast. FEMA identifies this location as Todd Road Drain with a 100-year flow of 520 cubic feet per second (cfs).

The area at box culvert #3 is identified on the FEMA FIRM as Zone AE (base flood elevations for the 100-year flood event are known - Figure 2.2.1-1). The FIRM in this area shows a limited area of drainage flooding across Soda Bay Road to the north. Lake County records indicate that flood waters flowing through this box culvert have overtopped Soda Bay Road at least four times in the past.

Environmental Consequences

Box culvert #2 and box culvert #3 overlap the 100-year floodplain (Figure 2.2.1-1). The flooding is caused primarily by Clear Lake and Manning Creek overflows. The roadway corridor of South Main Street and Soda Bay Road contributes minimally to this flooding. The widening of the roadway to a 3-lane section would increase the amount of water entering box culvert # 2 by about 1 percent (approximately 0.64 cfs) and into box culvert #3 by about 0.7 percent (approximately 0.44 cfs).

Based on analysis completed by Pacific Hydrologic Inc. (PHI) in July 2010 and referenced in the Summary Floodplain Encroachment Report (Quincy Engineering, Inc. 2010), the most probable 100-year peak flow at box culvert #2 is 380 cfs. The Todd Road Drain culvert under SR 29 provides an upstream constraint and limits the flow entering box culvert #2. PHI's hydraulic analysis of existing box culvert #2 determined that extending the existing box culvert would cause an increase to the water surface elevation. Therefore, as part of the project, box culvert #2 would be replaced with a larger culvert, to maintain the 400 cfs capacity of the existing box culvert. Replacing box culvert #2 would ultimately provide benefit by lowering the flood surface elevation post construction.

Analyses performed by PHI in July 2010 indicate that the most probable 100-year flow at box culvert #3 is estimated at 500 cfs. The existing capacity of box culvert #3 is approximately 130 cfs, under both low and high lake level conditions. Flows in excess of the upstream channel capacity of about 150 cfs, would become overflow that crosses the road at a location away from the channel. As part of the project, box culvert #3 would be replaced, realigned and constructed to maintain existing flow capacity and improve overall flow conditions. The replacement culvert would be designed to convey at least 130 cfs when the upstream water surface elevation is at the road crown level.

Roadway widening requires replacement of these culverts in an area designated as a floodplain by FEMA. Work on these box culverts is not considered a considerable floodplain encroachment because the alignment of the box culvert constitutes a transverse encroachment. Based on hydraulic modeling, extending/expanding the box culverts would not support incompatible floodplain development or cause an increase in backwater flows into the FEMA-designated floodplain.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measure has been incorporated into the project:

Project construction would occur during low-flow times to avoid flood-related impacts in the floodplain.

2.2.2 Water Quality and Storm Water Runoff

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, the Federal Water Pollution Control Act was amended, making the discharge of pollutants to the waters of the United States from any point source unlawful, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The Federal Water Pollution Control Act was subsequently amended in 1977, and was renamed the Clean Water Act (CWA). The CWA, as amended in 1987, directed that storm water discharges are point source discharges. The 1987 CWA amendment established a framework for regulating municipal and industrial storm water discharges under the NDPES program. Important CWA sections are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal project that proposes an activity, which may result in a discharge to waters of the United States to obtain certification from the State that the discharge will comply with other provisions of the act.
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) into waters of the United States. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) addresses storm water and non-storm water discharges.
- 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 USACE.

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

State Requirements: Porter-Cologne Water Quality Control Act (California Water Code)

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 otherwise) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives) required by the CWA, and regulating discharges to ensure that the objectives are met. 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 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 establishing Total Maximum Daily Loads (TMDLs). TMDLs establish 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 Pollutant Discharge Elimination System Program

The Central Valley (Region 5) office of the RWQCB guides and regulates water quality in streams and aquifers of the Lake County area through designation of beneficial uses, establishment of water quality objectives, administration of the NPDES permit program for storm water and construction site runoff, and Section 401 water quality certification where development results in fill of jurisdictional wetlands or waters of the U.S. under Section 404 of the CWA.

In October 2003, Lake County, the City of Clearlake, and the City of Lakeport submitted a Storm Water Management Plan (SWMP) and Notice of Intent (NOI), as co-permittees, for compliance with State Waste Discharge Requirements for Storm Water Discharges from Municipal Separate Storm Sewer Systems (General Permit) under the NPDES Phase II Program. On July 7, 2004, Lake County, the City of Clearlake, and the City of Lakeport were authorized to discharge from municipalities' Separate Storm Sewer Systems (MS4s) under the General Permit, provided that municipalities implemented and monitored the SWMP and were in full compliance with the requirements and prohibitions of the General Permit. The SWMP addresses six minimum control measures designed to reduce the impacts of urbanization on water quality:

- Public education and outreach on storm water impacts;
- Public involvement/participation;
- Illicit discharge detection and elimination;
- Construction site storm water runoff control;
- Post-construction storm water management in new development and redevelopment; and
- Pollution prevention/good housekeeping for municipal operations.

The Lake County Clean Water Program is administered by a joint powers of authority agreement between the County of Lake, City of Lakeport, and City of Clearlake. Program implementation is achieved through the Lake County Clean Water Program Advisory Council, which makes recommendations for overall program management and coordination, strategic planning, review, budget considerations, and conflict resolution with respect to the NPDES permit on behalf of all parties of the program.

Projects modifying more than 1 acre of land (in aggregate) are required to submit a NOI to the State Board and apply for coverage under the NPDES Construction General Permit.

Administration of these permits has not been delegated to cities, counties, or RWQCBs and remains with the State Board. Enforcement of permit conditions, however, is the responsibility of RWQCB staff, assisted by local municipal or county staff. Lake County requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP) prior to commencing construction. Once construction begins, the SWPPP must be kept onsite and updated as needed while construction progresses. The SWPPP details site-specific BMPs to control erosion and sedimentation and maintain water quality during the construction phase. The SWPPP also contains a summary of the structural and non-structural BMPs to be implemented during the post-construction period, pursuant to the non-point source practices and procedures outlined in the SWMP.

Affected Environment

Water Quality

The project site is located within the Cache Creek Hydrologic Unit, Upper Cache Creek Hydrologic Area, and Lakeport Hydrologic Sub-Area. Downstream hydrologic water bodies consist of Upper Cache Creek, Manning Creek, and Clear Lake. Wetlands within the project vicinity include Manning Creek, four unnamed tributaries running through the project site, potential wetlands along the east shoulder of South Main Street to the north of SR 175 and roadside runoff ditches that parallel both Soda Bay Road and South Main Street.

Surface Water Quality and the 303(d) List of Impaired Waters. Surface water resources in the County include several lakes, reservoirs, streams, creeks, springs and ponds. The County's larger perennial streams provide the necessary water for groundwater recharge and also deliver water to lakes and reservoirs. Clear Lake is a 303(d) listed water body for nutrients from unknown sources and has a listed TMDL for mercury and nutrients. The mercury TMDL is currently being addressed by the United States Environmental Protection Agency (EPA) and is primarily related to historic resource extraction activities. The County evaluates land use and development plans for their potential to cause an exceedance of the municipal waste load allocation for any TMDL under implementation, and to the maximum extent possible ensures that projects do not cause or contribute to water quality impairment.

Groundwater Quality. The project area is located within the Big Valley Groundwater Basin and the Scotts Valley Groundwater Basin. The Big Valley Groundwater Basin is located in the west-central portion of the County and has a surface area of 24,210 acres (38 square miles). The Scotts Valley Groundwater Basin lies adjacent to the west side of Clear Lake and extends northwesterly along Scotts Creek north to Hidden Lake. The surface area of the Scotts Valley Groundwater Basin is 7,230 acres (11 square miles).

According to the California Department of Water Resources' Bulletin 118 series, which summarizes groundwater data for the Big Valley and the Scotts Valley groundwater basins, there is an average seasonal fluctuation ranging from 5 to 15 feet for normal and dry years in these basins. Long-term comparison of spring groundwater levels indicates a slight decline in groundwater levels of up to 10 feet associated with the 1976-77 and 1987-94 droughts, followed by a recovery in levels to pre-drought conditions of the early 1970s and 1980s. Overall, there does not appear to be any increasing or decreasing trend in the groundwater levels. Monitoring reports submitted to the RWQCB for sites along South Main Street have indicated that groundwater in the project area typically flows to the east toward Clear Lake.

In general, groundwater quality in the County is good to excellent. Groundwater quality depends on the quality of water recharged to the aquifer, aquifer chemical properties,

fertilizer and pesticide applications, septic system leachate, landfills or illegal dumping. Studies conducted for the Big Valley Groundwater Basin note that the groundwater differs from other areas in the County with Big Valley having more magnesium than calcium relative to the bicarbonate content. Sodium, chloride and sulfate are also present in lower concentrations. Big Valley also occasionally has problems with geothermal features that contribute high levels of iron and boron, particularly during the late fall period when groundwater levels are at their seasonal low. In other aquifers or localized areas, elevated levels of iron, manganese, or hardness may be present. These parameters do not pose health threats; however, they are associated with nuisance properties such as taste, odor, and or scale formation on plumbing fixtures.

No drinking water reservoirs, recharge facilities, or sole source aquifers are located within the project limits.

Drainage

This section reports the results of the Storm Water Data Report (Quincy Engineering, Inc, 2008) and the Drainage Technical Memorandum (Quincy Engineering, Inc., 2011) prepared for the project.

Currently, storm water runoff is conveyed by sheet flow across road surfaces and adjacent parcels into unlined drainage trenches along South Main Street and Soda Bay Road where it drains into larger area drainage channels that flow to Manning Creek and Clear Lake. During construction, unlined roadside ditches would be backfilled and paved over to expand the roadway section. Runoff from these areas would be directed into drainage inlets and a pipe network that would discharge into the same larger drainage channels. In areas where there is adequate ROW, new ditches would be constructed alongside the expanded roadway to replace the existing ditches.

Environmental Consequences

Water Quality

Short-term Impacts to Surface Waters. Construction activities have the potential to cause erosion, sedimentation, and the discharge of non-storm water runoff from the project site. Clearing of vegetation and grading could lead to exposed or stockpiled soils susceptible to peak storm water runoff flows. Also, the compaction of soils by heavy construction machinery may reduce the infiltration capacity of soils (exposed during construction) and increase runoff and erosion potential. Demolition activities may lead to storm water runoff contamination. If uncontrolled, these materials could lead to water quality problems including sediment-laden runoff, prohibited non-storm water discharges, and ultimately the degradation of downstream receiving waters.

Construction activities for the project would disturb an estimated five acres of soil. Under the Statewide Construction NPDES permit, Lake County is required to implement BMPs to prevent the degradation of existing water quality. If BMPs for construction are properly designed, implemented, and maintained as required by the NPDES permit, then no adverse water quality impacts would occur during construction of the project.

Long-term Impacts to Surface Waters. The project would not involve a change in land use, with the exception of converting minimal agricultural land frontage and some pervious shoulder and roadway landscaping to roadway. The total increase in impervious surface area would be approximately 2.5 acres. As detailed in the Drainage Technical Memorandum, it is anticipated that the total volume of storm water runoff directed to Clear

Lake would slightly increase as a result of the increase in impervious surfaces associated with project implementation. In relation to the larger hydrologic drainage area, the increased discharge to Clear Lake would be negligible and no substantial hydraulic changes or erosion would occur.

The project would not substantially change the area of impervious surfaces or the existing drainage patterns within the project area. Hence, the project would not generally contribute runoff that would exceed the capacity of the existing drainage systems. The Drainage Technical Memorandum outlines storm drain system improvements to minimize the impacts of the project on the existing storm drain system.

Drainage features of the project would be designed to capture storm water runoff in a system of drainage inlets, storm water pipes, and roadside drainage ditches and to convey it to area drainage channels that flow to Manning Creek and Clear Lake. Cut and fill slopes would be replanted to control long-term erosion and runoff sedimentation. It is not anticipated that permanent treatment BMPs would be required.

Short-term Impacts to Groundwater. The project would not substantially deplete groundwater supplies. Likewise, construction of the project would not substantially interfere with groundwater recharge such that the local groundwater table would be lowered.

Mobilized pollutants could possibly enter the groundwater through recharge. Short-term impacts to groundwater may occur during construction activities, but these impacts can be minimized by construction BMPs. If construction BMPs are properly designed, implemented, and maintained as required by the NPDES permit, then no adverse water quality impacts would occur during construction of the project.

Long-Term Impacts to Groundwater. The project would not substantially deplete groundwater supplies. Likewise construction of the project would not substantially interfere with groundwater recharge such that the local groundwater table would be lowered. The project would not considerably expand impervious surfaces compared to the current roadway. Therefore, the project would not hinder groundwater recharge.

Drainage

Infrastructure improvements are detailed in the Drainage Technical Memorandum (Quincy Engineering, Inc. 2011). As part of the project, existing storm water drainage systems would be modified and additional drainage features would be constructed in order to conform to the new roadway geometry and to provide drainage for the increased impervious surface. Changes to existing drainage features would include: filling and covering existing drainage ditches to expand roadway sections, removing and relocating drainage inlets, relocating and replacing roadside drainage pipes, lengthening and/or expansion of existing box culverts, and removal of one existing box culvert. New improvements to the roadway drainage system would include the installation of new drainage inlets, construction of a centralized drainage trunk line, excavation of new roadside ditches, and construction of a new box culvert. Overall, these improvements would minimize the storm drainage effects of the project under a design storm.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures have been incorporated into the project:

Lake County would comply with the provisions of the Statewide NPDES General Construction Activity Permit (NPDES Permit No. CAS000002) and any subsequent permit or individual permit if required by the RWQCB as it relates to construction activities for the project, including dewatering. This compliance would include a NOI to the SWRCB prior to the start of construction. Upon completion of work and the stabilization of all disturbed areas, a Notice of Termination would be submitted to the Central Valley RWQCB in Sacramento.

Temporary construction BMPs would be implemented to help control erosion and minimize suspended sediment in storm water runoff. In addition, implementation of the avoidance and minimization measures included in Section 2.3.1, Wetlands and Other Waters, would minimize water quality impacts.

2.2.3 Geology/Soils/Seismic/Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under CEQA.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures.

Affected Environment

According to the United States Geological Survey (USGS) 7.5’ digital elevation model, elevation near the project site ranges from 1,328 to 1,490 feet above sea level. The site is located just west of Clear Lake in northern central California. The local topography is characterized by undulating hills less than 2,000 feet in elevation, with the lakeside having the lowest local elevations (approximately 1,330 feet). As both South Main Street and Soda Bay Road are near the lakeside, elevations at the project site average between 1,330 and 1,350 feet and are mostly less than 1,400 feet.

Regional Geology and Seismicity

The project area is located in the northwestern portion of the Big Valley Groundwater Basin and southeastern extent of the Scotts Valley Groundwater Basin. The western shore of Clear Lake is between 0.25-mile to 0.75-mile to the east of the proposed South Main Street and Soda Bay Road project alignment.

The dominant geographical feature in the project area is Clear Lake, which, at approximately 60 square miles, is the largest body of freshwater entirely within California. Clear Lake is located in the faultbounded Clear Lake Basin. Based on analysis of lake sediment cores, Clear Lake is believed to have existed in the basin for at least 135,000 years. The lake originally drained west toward the Russian River, but a landslide several thousand years ago blocked this drainage, forcing the lake east through Cache Creek. Lake levels rose precipitously during this period, flooding the low-lying lakeshore and inundating portions of the Big Valley Groundwater Basin.

The Big Valley Groundwater Basin is a former Pleistocene lakebed that has been uplifted and tilted, sloping gently toward Clear Lake to the north and east. The Mayacamas Mountains of the North Coast Ranges are to the west and consist of Jurassic-Cretaceous (250 to 70 million years) rock of the Franciscan Formation. Nearby Mount Konocti, on the south shore of Clear Lake to the southeast of the project area, consists of layers of volcanic rock and ash deposited between 400,000 and 250,000 years ago.

Quaternary and Tertiary alluvium from fan, lake bed, and floodplain deposits dominate the surface sediments within the Big Valley Groundwater Basin. Surface formations in the southern portion of the Scotts Valley Groundwater Basin consist of Quaternary alluvial and terrace deposits related to former stream channels, as well as some Plio-Pleistocene and Pleistocene lake and floodplain deposits. The surface geology along the proposed project alignment consists primarily of Holocene alluvium, with some Pleistocene nonmarine terrace deposits and Mesozoic ultrabasic (serpentinite and peridotite) intrusive rocks on sloping surfaces and at higher elevations near the southwestern corner of the proposed project alignment. Manning Creek is located to the east of the project alignment and appears to have shifted to the west in historical times.

Soils

Soil information for the project area comes from the USDA's Soil Conservation Service, which leads the National Cooperative Soil Survey and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned land in the United States. Multiple soil types are located within the project area including clays, clay loams, loams, and gravelly loams. Soil series located within the project area include Henneke, Cole Variant, Still, Clear Lake, Maxwell, and Wappo. Soils generally have slow water infiltration rates and a high water table. Soil drainage ranges from low (clays) to high (gravelly soils). Corrosion potential is high for all the soil types. Serpentine soils on the project site, located along the west side of Soda Bay Road, contain naturally occurring asbestos (NOA).

Liquefaction and Expansive Soils

Liquefaction occurs when saturated cohesionless soils are subject to a temporary but essentially total loss of shear strength under the reversing, cyclic shear stresses associated with earthquake shaking. Submerged cohesionless sands and silts of low relative density are the type of soils that are usually susceptible to liquefaction. Clays are generally not susceptible to liquefaction. Because liquefaction only occurs in saturated soil, its effects are most commonly observed in low-lying areas near bodies of water, such as rivers, lakes, bays, and oceans. Soils in and around Lakeport, especially near the lake shore are susceptible to liquefaction during a seismic event.

Expansive soils possess a shrink-swell characteristic. Structural damage may result over a long period of time, usually resulting from inadequate soil and foundation engineering. Expansive soils are largely comprised of clays, which expand in volume when water is absorbed and shrink when dried. According to the Environmental Impact Report prepared for the City of Lakeport's General Plan Update (2008), the predominant soils in the Lakeport area, in general, have a high shrink-swell potential.

Fault Rupture and Ground Shaking

Numerous faults, designated potentially active, exist within the County and could cause ground rupture, failure and shaking. Precise locations of these faults are not well established. Available information indicates that the greatest number of faults occur in the southwestern portion of the County near Mount Konocti, approximately 7 miles west of the

project site. The southeastern portion of the County also appears to have considerable faults, particularly from Grizzly Peak eastward and running from Knoxville to the southern County line. An additional fault zone runs diagonally through Lake Pillsbury, approximately 16 miles northeast of the project site. According to the California Geologic Survey's Seismic Shaking Hazards Map, the peak ground acceleration (pga) in Lake County ranges from 0.2 to 0.6 g.

Since no active faults pass through the project site, the potential for fault rupture is low, but strong ground shaking can be expected during the life of the project. The intensity of the shaking depends on the distance from the earthquake to the site, magnitude of the earthquake, and response of the structure to the underlying soil and rock. Without proper seismic engineering, this could result in damage to the roadway.

Environmental Consequences

The proposed project is the widening of an existing roadway currently subject to the seismic and geologic hazards described above. The proposed project does not include any buildings or structures designed for human habitation. Risks to the roadway and public safety are expected to be similar to existing conditions after project completion. The undergrounding of utilities could reduce the risk of falling wires during a seismic event, resulting in reduced risk to public safety and for property damage.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures have been incorporated into the project:

The proposed project would comply with all county, state and federal regulations relating to seismic and geologic hazards. The proposed project would be designed and constructed in accordance with appropriate safety regulations such as Occupational Safety and Health Administration (OSHA) requirements for trenching, shoring, and safety equipment usage. The project plans, specifications and special provisions will include project specific requirements for imported soil, embankment fill, structural section materials, and trench backfill.

2.2.4 Paleontology

Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects. (e.g., Antiquities Act of 1906 [16 USC 431-433], Federal-Aid Highway Act of 1935 [20 USC 78]). Under California law, paleontological resources are protected under CEQA, the California Code of Regulations (CCR), Title 14, Division 3, Chapter 1, Sections 4307 and 4309, and PRC Section 5097.5.

Affected Environment

This section reports the results of the Paleontological Study Memorandum (LSA Associates, Inc, 2009) prepared for the project.

Much of the North Coast Ranges, including the foothills to the west and south of the project area, consist of Jurassic-Cretaceous (161.2 to 100 Ma[4]) rock of the Franciscan Formation, a mélange primarily comprised of highly-metamorphosed clastic sedimentary rock. The geological landscape to the south and east of Clear Lake was formed largely by volcanic activity beginning approximately 2 million years ago, with exposed outcrops of Plio-Pleistocene (15 Ma to 10 Ka[5]) origin on Mount Konocti and Camelback ridge at the east and at the southeast boundary of Big Valley Groundwater Basin. Clear Lake, located between 0.25 mile and 0.75 mile of the project area, is believed to have existed for at least 135,000 years. The Clear Lake volcanic field was active throughout the Holocene, as evidenced by ash deposits and lava flows dating as recently as 850 B.C. Volcanism produced numerous obsidian and basalt deposits, such as those found in the lava flows at Borax Lake and in the volcanic deposits of Mount Konocti.

Quaternary (2.5 Ma to present) sediments from alluvial fan, lake bed, and flood plain deposition comprise the surface sediments within the project area. These deposits are 40 to 90 feet thick. Recent Holocene (11,000 years B.P.[6] to present) alluvium is mapped within the project area. Fourteen soil samples were collected during geoarchaeological coring and trenching in the South Main Street and Soda Bay Road to 10 feet below the ground surface and have been radiocarbon dated: all date to the Holocene. Holocene deposits, which are less than 10,000 years of age, are not sensitive for paleontological resources. The Holocene alluvium is underlain by Pleistocene (13,500 to 11,000 years B.P.) lakebed deposits at an unknown depth.

The Pleistocene deposits underlying the project area, at an unknown depth, may contain Rancholabrean-age land and freshwater fossils. Pleistocene-aged sediments are known to contain significant fossil resources throughout California and may include mammoth, ground sloth, rodents, birds, reptiles, and amphibians.

The Jurassic-Cretaceous Franciscan Formation may contain marine fossils, though preservation of fossils in this highly-metamorphosed formation is rare.

Environmental Consequences

The subsurface, to 10 feet below the ground surface, is Holocene in age. Based upon rates of alluvial deposition in the region, Holocene deposits likely extend well below the project's vertical depth of disturbance as well. Project ground-disturbing activities are not anticipated to extend below Holocene deposits. The project area is mapped as recent Holocene alluvium that is too young to be sensitive for paleontological resources. Holocene deposits, which are less than 10,000 years of age, are not sensitive for significant paleontological resources. Pleistocene lakebed deposits are located at an unknown depth below the vertical depth of disturbance and, if encountered, may contain significant vertebrate fossils. The project is not expected to directly or indirectly destroy a unique paleontological resource, site, or unique geologic feature.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures have been incorporated into the project:

[4] Million years
[5] Thousand years ago
[6] Before Present

Ground-disturbance in the Late Pleistocene alluvium below the Holocene deposits may encounter paleontological resources. If paleontological remains are discovered during the course of the project, all work would halt and the resources would be avoided by project activities. A qualified paleontologist (e.g., a professional with a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California or related topical or geographic areas)[7] would be contacted to assess the situation. Upon completion of an assessment, the paleontologist would prepare a report documenting the methods and results, and provide recommendations for the curation of paleontological materials.

Project personnel would not be permitted to collect or move any paleontological materials. Fill soils used for construction purposes would not contain paleontological materials.

2.2.5 Hazardous Waste/Materials

Regulatory Setting

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

The 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 of 1992
- Clean Water Act
- Clean Air Act (CAA)
- Safe Drinking Water Act
- Occupational Safety and Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide and Rodenticide Act

In addition to the acts listed above, EO 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.

7 Neither the federal or California state governments have mandated educational and/or experience requirements for paleontologists. The following suggested guidelines, as stated on the Caltrans Standard Environmental Reference website <http://www.dot.ca.gov/ser/vol1/sec3/physical/Ch08Paleo/chap08paleo.htm#preparer>, are derived from a combination of professional society, federal, state, and local agency guidance: A qualified paleontologist is an individual with: a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California or related topical or geographic areas; and at least one year full time professional experience, or equivalent specialized training in paleontological research, administration, or management.

Hazardous waste in California is regulated primarily under the authority of the federal RCRA 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.

Hazardous Waste Determination Criteria

Regulatory criteria to classify a waste as California hazardous for handling and disposal purposes are contained in the CCR, Title 22, Division 4.5, Chapter 11, Article 3, §66261.24. Criteria to classify a waste as RCRA hazardous waste are contained in Chapter 40 of the CFR, Section 261.

For waste-containing metals, the waste is classified as California hazardous when: 1) the total metal content exceeds the respective Total Threshold Limit Concentration (TTLC); or 2) the soluble metal content exceeds the respective Soluble Threshold Limit Concentration (STLC) based on the standard Waste Extraction Test (WET). A material is classified as RCRA hazardous, or federal hazardous, when the soluble metal content exceeds the federal regulatory level based on the Toxicity Characteristic Leaching Procedure (TCLP). Waste classified as either California hazardous or RCRA hazardous requires management as a hazardous waste.

The California Department of Toxic Substances Control (CDTSC) regulates and interprets hazardous waste laws in California. The CDTSC generally considers excavated or transported materials that exhibit “hazardous waste” characteristics to be a “waste” requiring proper management, treatment and disposal. The CDTSC issued a variance on June 30, 2009 for Caltrans regarding the disposition of lead-impacted soils within Caltrans projects. The variance contains stipulations regarding the reuse and management of lead-impacted soil as fill material for construction and maintenance operations in Caltrans ROW.

Under 40 CFR 61, Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and federal Occupational Safety and Health Act classify an asbestos-containing material as any material or product that contains more than 1 percent asbestos. Activities that disturb materials containing any amount of asbestos are subject to certain requirements of the California Division of Occupational Safety and Health (Cal/OSHA) asbestos standard contained in Title 8, CCR Section 1529. Materials containing more than 1 percent asbestos are also subject to NESHAP regulations (40 CFR Part 61, Subpart M).

Construction activities (including demolition) that disturb materials or paints containing any amount of lead are subject to certain requirements of the Cal/OSHA lead standard contained in Title 8, CCR, Section 1532.1. Deteriorated paint is defined by Title 17, CCR, Division 1, Chapter 8, §35022 as a surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separating from a component. Demolition of a deteriorated lead-containing paint (LCP) component would require waste characterization and appropriate disposal.

Affected Environment

This section reports the results of the Phase I Initial Site Assessment (ISA) (LSA Associates, Inc. 2009), and the Phase II Site Investigation Report (Taber Consultants, Inc. 2010) prepared for the project.

The purpose of the ISA investigation was to determine whether construction activities associated with the proposed project could be affected by any recorded or visible hazardous materials within and adjacent to the roadway, and to recommend any additional testing as appropriate. The ISA was conducted in 2009, and generally included a visual inspection of the project area, review of previous environmental reports prepared for properties in the project vicinity, and a government records search for hazardous waste sites in the project vicinity. A Phase II Site Investigation Report was subsequently conducted based on the findings of the ISA, as described briefly below.

A Phase II Site Investigation for aerially-deposited lead (ADL), NOA, other metals, and petroleum hydrocarbons in shallow soil and groundwater within the project area was conducted in 2010. The study included ADL soil sampling, yellow traffic striping sampling, NOA soil sampling, and potential hydrocarbon-impacted soil and groundwater sampling.

Existing Setting

Land uses surrounding the project are primarily commercial, consisting of automotive businesses such as gas stations, used car dealerships, automobile repair, and supply businesses. Other business types include propane gas tank sales, storage facilities, fast food restaurants, a resource recovery facility (Clearlake Waste Solutions) and a veterinary clinic. Other land uses include open grassy lots, farmland along the southeast portion of the project area, and private residences. Clear Lake is located approximately 0.25 to 0.75 mile northeast of the project area, and Manning Creek runs just east of the southeastern border of the project site.

Database and Regulatory Reviews

As part of the ISA, a search of environmental regulatory databases was conducted for the South Main Street and Soda Bay Road corridor and surrounding properties in order to determine the likelihood of encountering contamination from hazardous materials during construction. The database search was conducted by Environmental Data Resources, Inc. (EDR). The sites identified in the EDR search were evaluated with respect to their potential to affect the project adversely. Four main criteria were used to evaluate whether the EDR-listed sites warranted further consideration: (1) proximity to the corridor (less than 150 feet from edge of the proposed ROW); (2) hydraulically upgradient with respect to groundwater flow; (3) hydraulically upgradient with respect to surface water flow/storm water runoff; and (4) whether ROW would be required from listed properties. Visual surveys of the project site were conducted on December 26, 2007 and December 7, 2008 to visually assess areas of potential environmental concern related to the generation, use, storage, or disposal of hazardous materials along the proposed project alignment.

The following sites, which are located adjacent to and in the vicinity of the project area, were evaluated for project area impact risk and determined to present a low potential for residual contamination in the project area.

- Tesoro West Coast Company LLC, 975 South Main Street
- Chevron USA/Chevron #1802, 1050 South Main Street

- Pete's Auto Line Car Care/Pete's Automotive, 1665 South Main Street
- Central Garage/County of Lake Campbell Lane/Department of Public Works Fleet Maintenance Division, 1825 South Main Street
- Lange Brothers Construction, 301 Industrial Avenue

The following sites, which are located adjacent to and in the vicinity of the project area, were evaluated for project area contamination risk and determined to present a moderate to high potential for residual contamination in the project area.

- Carlton Tire, 2335 South Main Street
- Wittman Ford & Mercury, Inc./Northlake Ford and Mercury, 2575 South Main Street

Soil and Groundwater Testing

In response to recommendations in the ISA, a Phase II Site Investigation Report (2010) was prepared, which included the collection of soil and groundwater samples along the project alignment, laboratory analysis of the samples, statistical analysis of laboratory results, and the presentation of conclusions and recommendations based on the results. The results of the investigation are summarized below. Refer to the *Phase II Site Investigation Report* for specific sampling methodology and detailed test results.

Aerially Deposited Lead. A total of 90 soil samples were collected in September 2009 from 30 soil borings at depths ranging from 0 to 18 inches. The ADL soil samples were submitted to Sparger Technology, Inc. for analysis.

Eighty-five soil samples were analyzed for total lead, with reported concentrations ranging from 2.50 to 657 milligrams per kilogram (mg/kg). Thirty-three samples were analyzed for soluble lead waste content with de-ionized water as the extractant, with reported results ranging from 0.0100 milligrams per liter (mg/l) to 0.122 mg/l. Four samples were analyzed for soluble lead using Toxicity Characteristics Leaching Procedure, with results ranging from 0.0796 mg/l to 0.145 mg/l. Ten samples were analyzed for pH with reported results ranging from 6.9 to 8.36 standard units.

The maximum concentration of total lead detected in any of the soil samples was 657 mg/l, which is well below the TTLC of 1,000 mg/kg for classification as a California Hazardous Waste. In addition, WET results indicated a maximum soluble lead concentration of 0.12 mg/l, which is well below the STLC of 5.0 mg/l for classification as a California Hazardous Waste. Furthermore, the maximum TCLP result was 0.15 mg/l, which is well below the threshold of 5.0 mg/l for classification as RCRA Hazardous Waste. Soil within the proposed construction area should not be classified as California or RCRA Hazardous Waste, and would have no restrictions on usage or disposal.

Paint Stripe Sampling. In September 2009, four representative samples of the yellow and white paint striping were collected and submitted for analysis of lead and chromium. All of the paint stripe samples collected in the project area had hazardous levels of lead.

Naturally-Occurring Asbestos. The southwest portion of the project area west of Soda Bay Road has the potential for NOA. Three soil samples were collected along the project ROW and submitted for asbestos analysis using California Air Resources Board (CARB) Method 435 to identify whether NOA is present in these locations.

The soil samples collected within the project area did not contain chrysotile asbestos above the minimum detection limit of 0.25 percent. Soils collected have no asbestos disposal restrictions.

Petroleum Hydrocarbons. Seven sites were identified as having the potential for encountering petroleum hydrocarbon-impacted soil and groundwater during construction. In September 2009, seven soil samples to ten feet below ground level were collected from these locations to document the presence, if any, of petroleum hydrocarbons in the soil along the project alignment. Soil samples collected during this portion of the investigation were analyzed for total petroleum hydrocarbons as gasoline (TPH-G); total petroleum hydrocarbons as diesel (TPH-D); benzene, toluene, ethyl benzene and total xylenes (BTEX); and fuel oxygenates methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA). Only toluene was detected at a concentration of 0.0018 mg/kg within the ROW fronting the Carlton Tire facility. The Environmental Screening Level for toluene is 2.9 mg/kg, which is well above the 0.0018 mg/kg of toluene detected. Therefore, toluene in this soil sample does not appear to constitute an environmental risk to the project alignment.

Groundwater samples were proposed to be collected following the termination of each of the borings. However, groundwater was only present in sufficient quantities in one boring. No petroleum hydrocarbons were detected above the laboratory's minimum detection limit in the one groundwater sample fronting the Wittman Ford facility.

Environmental Consequences

As described above and in the Phase II Site Investigation Report, soil and groundwater contaminants, including aerially deposited lead and petroleum hydrocarbons, were detected in concentrations well below the thresholds for classification as California or RCRA Hazardous Waste. In addition, samples collected within the project area did not contain chrysotile asbestos above the minimum detection limit of 0.25 percent.

Construction workers could be exposed to hazards from ADL and LCP. Although ADL concentrations are below thresholds for classifications as a hazardous waste, lead contaminated soils could pose a health risk to workers during excavation and grading activities. LCP identified in yellow thermoplastic and/or paint striping has the potential to pose a hazard to workers or the environment during disturbance related to construction activities. Intact LCP identified during the survey would be considered a California and federal hazardous waste based on lead content if it were stripped, blasted, or otherwise separated from the substrate.

Although subsurface investigation work indicates a low likelihood of encountering NOA or petroleum hydrocarbon-impacted soil and groundwater during construction activities, it cannot be discounted entirely. Soil contaminants and NOA could pose a hazard to worker safety or the environment during construction activities.

Other than those noted above, additional environmental areas of concern were not identified by the Phase I ISA (2009) or the Phase II Site Investigation Report (2010) prepared for this project.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures have been incorporated into the project:

Employee lead exposure would be assessed and special health and safety procedures would be in effect for the workers working near lead contaminated areas, consistent with the provisions of CCR Title 8, §1532.1. California Code of Regulations Title 8, §1532.1 applies to all construction work where an employee may be exposed to lead and it: 1) establishes an 8 hour permissible exposure limit of 50 µg/m3; 2) requires an exposure assessment in all workplaces where an employee may be exposed to lead; 3) sets worker protection measures to minimize lead exposure. Safety and health procedures for the protection of workers exposed to lead contaminated soils or lead containing paint would be included in the project specific health and safety plan (HSP, described below).

Yellow thermoplastic and/or paint striping would be removed as an independent action and the waste generated during striping removal would be sampled, if necessary, handled, and disposed of as hazardous waste.

The contractor(s) would prepare a project-specific HSP for work involving handling soil and groundwater impacted by lead, petroleum hydrocarbons, volatile organic compounds (VOCs), and metals. The HSP would comply with the Safety and Health Program requirements outlined in Title 8 CCR (T8 CCR) §5192(b) Hazardous Waste Operations and Emergency Response, and worker training requirements of T8 CCR §5194 Hazard Communication. The HSP would include protocols for environmental and personnel monitoring requirements, personal protective equipment, and other health and safety practices and procedures required to minimize worker exposures during work involving soil and groundwater impacted by lead, petroleum hydrocarbons, VOCs, and metals.

If suspected impacted soil or groundwater is encountered, work would cease and the construction engineer or supervisor would contact the County Environmental Health Department to define the extent and magnitude of the impacted area. If determined that the impacted soil or groundwater poses a risk to human health or the environment, the contractor(s), in conjunction with the project engineer and the County Environmental Health representative, would develop a plan to remove and/or mitigate the impacted soil or groundwater to minimize impacts.

The County will ensure that a Serpentine Dust Control Plan is submitted to the Lake County Air Quality Management District (LCAQMD) at least 30 days before any ground disturbance commences. The dust control plan form, available through the LCAQMD, will document the measures that the contractor will implement to control dust during work in regulated serpentine areas.

2.2.6 Noise

Regulatory Setting

NEPA (1969) and CEQA (1970) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

California Environmental Quality Act

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant

noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless such measures are not feasible.

National Environmental Policy Act and 23 CFR 772

For highway transportation projects with FHWA (and Caltrans, as assigned) involvement, the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 A-weighted decibels, dBA) is lower than the NAC for commercial areas (72 dBA). Table 2.2.6-1 lists the NAC for use in the NEPA-23 CFR 772 analysis.

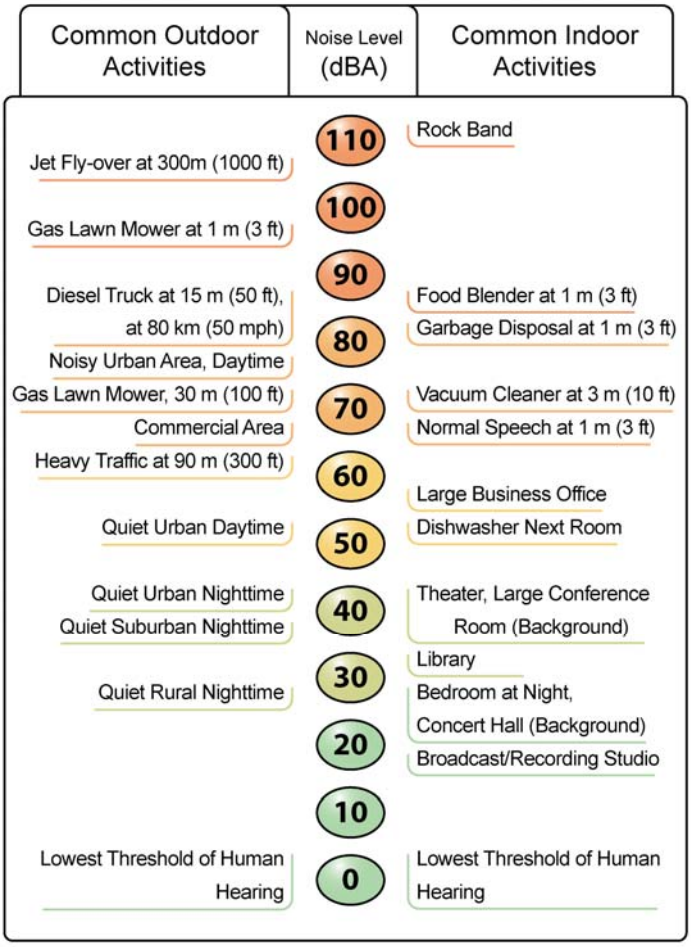
Table 2.2.6-1. Noise Abatement Criteria

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

dBA = A-weighted decibel
L_{eq}(h) = Peak Hour Equivalent Sound Level

Table 2.2.6-2 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise-levels discussed in this section with common activities.

Table 2.2.6-2. Noise Levels of Common Activities



In accordance with Caltrans' Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, August 2006 (Protocol), a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

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

Caltrans' Traffic Noise Analysis Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5 dBA reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents' acceptance, the absolute noise level, build versus existing noise, environmental

impacts of abatement, public and local agencies input, newly constructed development versus development pre-dating 1978 and the cost per benefited residence.

Local Regulations and Policies

Lake County. The Noise Element of the County General Plan (2008) establishes the County's land use compatibility guidelines with regards to noise for new development. These maximum allowable noise exposure thresholds for new developments according to land use are shown in Table 2.2.6-3. Where proposed land uses are likely to produce noise levels exceeding the "normally acceptable" criteria (e.g., "conditionally acceptable", "normally unacceptable"), the County requires that an acoustical analysis be performed prior to development approval to ensure that noise mitigation measures are included as part of the project. New residential developments exposed to noise levels less than 56 dBA community noise equivalent level (CNEL) are considered normally acceptable.[8] New residential developments exposed to noise environments ranging from 56 to 70 dBA CNEL would, at a minimum, be required to meet interior noise standards. The County's interior noise level standard for residential land uses is 45 dBA CNEL.

Other policies within the County's Noise Element include transportation noise abatement measures to reduce impacts on existing and proposed land uses located near highways and major roads. Noise abatement measures should be implemented in these circumstances to reduce noise impacts. These measures could include the use of soundwalls or landscaped berms, restriction of building multistory dwellings within fixed distances of major roads, use of open space as a buffer, or incorporation of site planning or architectural treatments, and alternative technologies (e.g., muffle geothermal-related noise emission). In addition, it is the County's policy to work closely with Caltrans to mitigate noise levels and associated impacts on noise sensitive receptors near existing and proposed state facilities by requiring noise buffering or insulation measures.

The County's Noise Element further requires contractors to implement noise-reducing mitigation measures during construction when residential uses or other noise sensitive receptors are located within 500 feet of the construction site.

[8] CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to sound levels occurring for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours).

Table 2.2.6-3. Lake County Maximum Allowable Noise Exposure by Land Use

	Noise Level (CNEL)						
	45-50	**51-55**	**56-60**	**61-65**	**66-70**	**71-75**	**>76**
Residential - Low Density Single Family, Duplex, Mobile Homes							
Residential - Multiple Family, Group Homes							
Motels/Hotels							
Schools, Libraries, Churches, Hospitals, Extended Care Facilities							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

	Normally Acceptable. Specified land use is satisfactory, based on the assumption that any buildings involved are of normal, conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design.
	Normally Unacceptable. New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.
	Unacceptable. New construction or development should not be undertaken.

Source: Lake County, 2008. *Lake County General Plan, Chapter 8 Noise Element*, Table 8-1. September.

City of Lakeport. The City of Lakeport General Plan (2009) policies restrict the development of noise sensitive land uses in areas exposed to existing or projected levels of noise from transportation noise sources that exceed the noise level standards contained within the Noise Element, unless the project design includes effective mitigation that results in the noise exposure which meets standards. Table 2.2.6-4 indicates the noise and land use compatibility standards for the City.

Table 2.2.6-4. City of Lakeport Noise and Land Use Compatibility Standards

Land Use	Maximum Exterior Noise Level, L_{dn} [1]
Residential Development	Up to 60 dBA
Transient Lodging: Motel and Hotel	Up to 60 dBA
School, Library, Church, Hospital, and Nursing Home	Up to 60 dBA
Auditorium, Concert Hall, Amphitheater, Sports Arena	Up to 70 dBA
Sports Arena, Outdoor Spectator Sports	Up to 75 dBA
Playgrounds, Neighborhood Parks, Open Space	Up to 70 dBA
Golf Course, Cemetery	Up to 70 dBA
Office Building, Business, Commercial & Professional	Up to 65 dBA
Industrial, Manufacturing, Utilities	Up to 70 dBA

[1] Day/Night Noise Level, L_{dn} – The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.

Source: City of Lakeport, 2009. *2025 General Plan, Noise Element,* Table 15. August.

The maximum outdoor noise levels in residential areas of 60 dBA L_{dn} is applied where outdoor use is a major consideration, such as backyards in single family housing developments and recreation areas in multifamily developments. This standard should not be applied to outdoor areas such as small decks and balconies typically associated with multifamily residential developments, which can have a higher standard of 65 dBA L_{dn}.

The State of California Noise Insulation Standards maximum acceptable interior noise level for new residential development is 45 dBA L_{dn}. The City applies this standard to all new single family and all other residential development in Lakeport, as well as to new office developments.

The Noise Element policies discourage the use of sound walls to mitigate noise levels and encourage developers to utilize site design techniques, vegetative landscaping, berms, building setbacks, and alternative architectural layouts as a means of meeting noise reduction requirements. Where sound walls are deemed appropriate, design standards shall be applied to reduce visual and aesthetic impacts.

The Noise Element further requires mitigation measures for projects that would cause the following criteria to be exceeded or would generate noise that could cause significant adverse community response:

- Cause the L_{dn} in existing residential areas to increase by 3 dBA or more and exceed 55 dBA L_{dn}.

- Cause the L_{dn} in existing residential areas to increase by 3 dBA or more if the L_{dn} currently exceeds 55 dBA.

The City notes that a 3 dBA increase in traffic noise levels would result if traffic increased by 100 percent over existing levels. It is recognized that there are locations where the outdoor criteria of 55 dBA L_{dn} cannot be reasonably and feasibly achieved. According to the City, these situations would be evaluated on a case-by-case basis to determine the appropriate level of mitigation.

The City's Zoning Ordinance contains performance standards which regulate the design and use of buildings or parcels of land with the intent of improving living and working environments, reducing nuisance conditions and minimizing impacts of certain land uses on adjacent properties. These standards govern noise sources from properties regulated by the City's zoning ordinance. As the proposed project only involves roadway improvements, these standards are not applicable to the proposed project.

Affected Environment

This section reports the results of the Noise Study Report (LSA Associates, Inc. 2008) prepared for the project.

Existing Land Uses and Sensitive Receptors

The predominant land use along the South Main Street and Soda Bay Road business corridor is commercial, including automotive repair shops, gas stations and other commercial businesses. Other land uses along the corridor include industrial and agriculture. Agriculture lands are present at the southern end of the project area, with farmland bordering the project site along the east-west alignment of Soda Bay Road.

Noise sensitive land uses, including single-family residential land uses, are located adjacent to the project that would potentially be exposed to construction and traffic noise impacts. The following residential properties are located within approximately 50 to 100 feet of the centerline of the project roadway segments. The locations of each of these noise sensitive land uses are listed below.

- 2510 and 2530 South Main Street (modeled receptor R1)
- 32 Soda Bay Road (modeled receptor R2)
- 53 Soda Bay Road (modeled receptor R3)
- 110 Soda Bay Road (modeled receptor R4)
- 290 Soda Bay Road (modeled receptor R5)
- 330 Soda Bay Road (modeled receptor R6)

Existing Noise Sources

Vehicular traffic is the dominant existing source of ambient noise in the project vicinity. Other noise sources in the project vicinity include industrial and commercial operational noise sources. These operational noises include loading and unloading operations as well as mechanical equipment and loud speaker operational noises. Sounds, such as agricultural operations, as well as sound from wind and birds, also contribute to the ambient noise environment in the project vicinity.

The major noise source affecting the ambient environment along the project roadway alignment is the existing traffic along South Main Street and Soda Bay Road. Some traffic noise from SR 29 may also extend into the project corridor (due to proximity to the project corridor) and affect ambient noise levels. Noise monitoring would have included noise generated from all noise sources. Existing traffic noise levels were generated from data including PM peak hour roadway traffic volumes, vehicle speeds, and roadway geometry, using traffic noise model (TNM) 2.5. Existing noise levels at the modeled receptor locations are shown in Table 2.2.6-5. Model inputs for existing conditions are provided in the Noise Study Report.

The outdoor active use areas of the modeled residential land uses were evaluated against the activity category B at 67 hourly A-weighted noise level (dBA L_{eq}(h)) NAC for exterior noise and against the activity category E at 52 dBA L_{eq}(h) NAC for interior noise based on a conservative exterior-to-interior noise reduction of approximately 15 dBA with windows open.[9] None of the modeled receptors currently "approach or exceed" the NAC under the activity category B (67) or E (52).

Table 2.2.6-5. Existing Traffic Noise Levels (dBA L_{eq}(h))

Receptor No.	Location	Type of Land Use	No. of Units Represented	Noise Abatement Criteria	Existing Exterior Noise Levels
R1	2510 and 2530 South Main Street	Residential	1	B(67) / E (52)	55
R2	32 Soda Bay Road	Residential	1	B(67) / E (52)	52
R3	53 Soda Bay Road	Residential	1	B(67) / E (52)	54
R4	110 Soda Bay Road	Residential	1	B(67) / E (52)	49
R5	290 Soda Bay Road	Residential	1	B(67) / E (52)	52
R6	330 Soda Bay Road	Residential	1	B(67) / E (52)	48

dBA = A-weighted decibel
L_{eq}(h) = Peak Hour Equivalent Sound Level
Source: LSA Associates, Inc., 2008.

Environmental Consequences

Temporary Noise Impacts

Short-term Construction Noise Impacts. Two types of short-term noise impacts would occur during project construction. The first type would be from construction crew commutes and the transport of construction equipment and materials to the project site and would incrementally raise noise levels on access roads leading to the site. Heavy equipment used for grading and construction activities would be moved on site, would remain for the duration of each construction phase, and would not add to the daily traffic volume in the project vicinity. A high single-event noise exposure potential at a maximum noise level (L_{max}) of 87 dBA from trucks passing at 50 feet would exist. However, the projected construction traffic would be small when compared to existing traffic volumes on South Main Street and

[9] Based on the EPA's Protective Noise Levels (EPA 550/9-79-100, November 1978), with a combination of walls, doors, and windows, standard construction for northern California residential buildings would provide more than 25 dBA in exterior to interior noise reduction with windows closed and 15 dBA or more with windows open.

Soda Bay Road, and its associated short-term noise level change would not be perceptible. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would be less than substantial.

The second type of short-term noise impact is related to noise generated during roadway construction. Construction is performed in discrete steps, each of which has its own mix of equipment and consequently its own noise characteristics. These various sequential phases would change the character of the noise generated and the noise levels as well along the project alignment as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 2.2.6-6 lists typical construction equipment noise levels (L_{max}) recommended for noise impact assessments, based on a distance of 50 feet from the operating piece of equipment.

Table 2.2.6-6. Typical Construction Equipment Noise Levels

Type of Equipment	Range of Maximum Sound Levels (dBA L_{max} at 50 ft)	Estimated Maximum Sound Levels for Analysis (dBA L_{max} at 50 ft)
Pile Drivers	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	74 to 84	80
Scrapers	83 to 91	87
Haul Trucks	83 to 94	88
Cranes	79 to 86	82
Portable Generators	71 to 87	80
Rollers	75 to 82	80
Dozers	77 to 90	85
Tractors	77 to 82	80
Front-End Loaders	77 to 90	86
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	86
Air Compressors	76 to 89	86
Trucks	81 to 87	86

Source: *Noise Control for Buildings and Manufacturing Plants*, Bolt, Beranek & Newman, 1987.
dBA = A-weighted decibels
ft = feet
L_{max} = maximum instantaneous noise level

Construction of the project is expected to require the use of earthmovers such as bulldozers and scrapers, loaders and graders, rollers, haul trucks, water trucks, and pickup trucks. Pile drivers and rock drills are not expected to be used during project construction. As shown in Table 2.2.6-6, the typical maximum noise level generated by each earthmover on the project site is assumed to be 88 dBA L_{max} at 50 feet from the operating earthmover. The maximum noise level generated by water and pickup trucks is approximately 86 dBA L_{max} at 50 feet from these vehicles. Each doubling of the sound sources with equal strength would increase the noise level by 3 dBA. Assuming each piece of construction equipment operates at some

distance apart from the other equipment, the worst-case combined noise level during this phase of construction would be 91 dBA L_{max} at a distance of 50 feet from an active construction area.

The closest noise sensitive receptors within or adjacent to the project construction limits are the residential properties located at 2510 and 2530 South Main Street, and 330 Soda Bay Road, at a distance of approximately 20 to 25 feet from the proposed construction areas. At these distances, construction noise levels under worst case conditions would be approximately 97 dBA L_{max} at the closest exterior façade of these residential properties. Although this range of construction noise would be higher than the ambient noise, it would cease to occur once the project construction is completed. In addition, these noise sources would only occur during the noisiest phases of construction. Implementation of standard construction noise minimization measures and limiting the hours in which noise-producing construction activities could occur would minimize these noise impacts. All of the other noise sensitive receptors are located more than 50 feet away from the proposed roadway and would experience lower noise levels than the closest sensitive receptors.

In addition to noise impacts, construction activity can also result in varying degrees of groundborne vibration impacts, depending on the equipment and methods employed. As shown in Table 2.2.6-7, a large bulldozer typically generates 87 vibration velocity decibels (VdB) at 25 feet and a small bulldozer typically generates 58 VdB at 25 feet; while loaded trucks typically generate 86 VdB at 25 feet. As mentioned above, pile drivers are not expected to be used in construction of this project.

Table 2.2.6-7. Typical Vibration Source Levels for Construction Equipment

Equipment		Approximate VdB* at 25 feet
Pile Driver (impact)	Upper range	112
	Typical	104
Pile Driver (sonic)	Upper range	105
	Typical	93
Clam shovel drop (slurry wall)		94
Hydromill (slurry wall)	In soil	66
	In rock	75
Vibratory roller		94
Hoe ram		87
Large bulldozer		87
Caisson drilling		87
Loaded trucks		86
Jackhammer		79
Small bulldozer		58

* VdB = Vibration velocity measured in decibels
Source: Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment.* May.

According to the Federal Transit Administration's Transit Noise and Vibration Impact Assessment (2006), the threshold for construction vibration levels for causing possible damage to existing structures is 94 VdB. Since no off-site buildings or structures would be exposed to a vibration level reaching 94 VdB, no architectural damages would occur for off-site buildings or structures from construction on site. Therefore, no considerable groundborne noise and vibration impacts would occur.

Permanent Noise Impacts

Although the proposed project itself would not generate additional vehicle trips, an increase in traffic along the alignment is anticipated due to a projected increase in population and jobs through general plan build-out. In addition, implementation of the proposed project would result in increases at modeled receptor locations under future conditions compared to noise levels without the project due to changes in the project alignment. Predicted increased traffic volumes along the project segments could expose noise sensitive land uses adjacent to the proposed project area to noise levels in excess of standards established in the County and City General Plans and Ordinances.

The FHWA TNM 2.5 was used to evaluate traffic related noise conditions in the vicinity of the project site. The model used data from the Traffic Operation Analysis report prepared by TJKM Transportation Consultants, 2008. The model inputs include the PM peak hour levels; percentages of autos and medium and heavy trucks; vehicle speeds; ground attenuation factors; roadway widths; and setback distances of receptors from the roadway centerline. Detailed modeling information is included in the Noise Study Report.

To evaluate the potential impact of the proposed project, the traffic noise levels for existing conditions and for the future design year 2030 with and without the project were calculated for each modeled receptor location. The results are shown in Table 2.2.6-8 for each of these respective scenarios. The table shows the increase in dBA with the project over existing and 2030 no project conditions for each modeled receptor.

The outdoor active use areas of the modeled residential land uses were evaluated against the activity category B at 67 dBA L_{eq}(h) NAC for exterior noise and against the activity category E at 52 dBA L_{eq}(h) NAC for interior noise based on a conservative exterior-to-interior noise reduction of approximately 15 dBA with windows open. As shown in Table 2.2.6-8, none of the modeled receptors under future (2030) conditions would “approach or exceed” the NAC under the activity category B (67) or E (52) with windows open.

Based on FHWA criteria, if the modeled future peak-hour traffic noise level at a noise sensitive receptor location is 12 dBA or more higher with the project than the corresponding existing modeled noise level at that noise sensitive receptor location, the project would be considered to result in a substantial increase and noise abatement measures must be considered. As shown in Table 2.2.6-8, the ambient noise levels at the modeled receptor locations would be increased by 2 dBA to 5 dBA over existing conditions. Therefore, the proposed project would not result in a substantial increase in traffic noise levels due to increases in traffic noise levels, and noise abatement would not be required under FHWA criteria.

Table 2.2.6-8. Predicted Traffic Noise Levels (dBA peak hour L_{eq}(h))

Receptor No.	Location	Noise Abatement Criteria	Existing Exterior Noise Levels	Future (2030) No Project Noise Levels	Future (2030) Plus Project Noise Levels	Increase over Existing Level	Increase over 2030 No Project Level
R1	2510 and 2530 South Main Street	B(67) / E(52)	55	58	60	5	2
R2	32 Soda Bay Road	B(67) / E(52)	52	54	57	5	3
R3	53 Soda Bay Road	B(67) / E(52)	54	56	56	2	0

Receptor No.	Location	Noise Abatement Criteria	Existing Exterior Noise Levels	Future (2030) No Project Noise Levels	Future (2030) Plus Project Noise Levels	Increase over Existing Level	Increase over 2030 No Project Level
R4	110 Soda Bay Road	B(67) / E(52)	49	51	54	5	3
R5	290 Soda Bay Road	B(67) / E(52)	52	54	56	4	2
R6	330 Soda Bay Road	B(67) / E(52)	48	50	52	4	2

dBA = A-weighted decibel
L_{eq}(h) = Peak Hour Equivalent Sound Level
Source: LSA Associates, Inc., 2008.

In accordance with 23 CFR 772, noise abatement must be considered if the peak-hour traffic noise level at a noise sensitive receptor location is predicted to "approach or exceed" the NAC. As none of the modeled receptor locations would experience traffic noise levels under the design year (2030) conditions that "approach or exceed" the NAC, no considerable interior noise impacts would occur from traffic noise sources and no abatement would be necessary.

CEQA Noise Analysis

While the criteria for FHWA are in terms of peak hourly noise level L_{eq}(h), the significance criteria for the City is stated in terms of L_{dn}, and those for the County are in terms of CNEL. The noise metric L_{eq}(h) would be higher than the 24-hour averaged noise level metrics of L_{dn} or CNEL. Therefore, for purposes of this analysis, to establish the worst case scenario, the noise metric of L_{eq}(h) was used for calculating traffic noise levels. However, based on the City's significance criteria, because the existing traffic noise levels along South Main Street and Soda Bay Road are greater than 55 dBA CNEL, the proposed widening project would have a significant impact to surrounding noise sensitive receptors if the project would increase noise by more than 3 dBA. As shown in Table 2.2.6-8, the proposed project would increase noise levels in the vicinity of the project site from 0 dBA to 3 dBA over future 2030 no project conditions.

Model results indicate that the existing traffic noise levels at the modeled noise sensitive receptors range from 48 dBA to 55 dBA L_{eq}(h) without the project. Future year 2030 traffic noise levels without the project would range from 50 dBA to 58 dBA L_{eq}(h) at the modeled noise sensitive receptor locations, and with the project would range from 52 dBA to 60 dBA L_{eq}(h).

These noise levels are within the County's conditionally acceptable ranges for new residential development. Therefore, for City and County standards, design features need to be incorporated into the project to guarantee that the maximum acceptable interior noise level of 45 dBA CNEL is maintained for residential properties along the project limits. Based on the EPA's Protective Noise Levels (EPA 550/9-79-100, November 1978), with a combination of walls, doors, and windows, standard construction for northern California residential buildings would provide more than 25 dBA in exterior to interior noise reduction with windows closed and 15 dBA or more with windows open. Under future (year 2030) with project conditions, the modeled receptors would meet the interior noise standard with the windows open (i.e., 60 dBA – 15 dBA = 45 dBA). Therefore, no significant interior noise impacts would occur from traffic noise sources and no mitigation under CEQA would be necessary.

Avoidance, Minimization, and/or Mitigation Measures

To meet the City and County noise standards, the following measures would be implemented as part of the project:

- The construction contractor would ensure that all general construction related activities are restricted to the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and 8:00 a.m. to 7:00 p.m. on weekends.
- All internal combustion engines would be equipped with the manufacturer-recommended muffler. Internal combustion engines would not be operated on the construction site without the appropriate muffler.
- The project contractor would place all stationary construction equipment so that emitted noise is directed away from noise sensitive receptors nearest the active project site.
- To the extent feasible, the construction contractor would locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise sensitive receptors nearest the active project site during all project construction.

2.3 BIOLOGICAL ENVIRONMENT

2.3.1 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344) is the primary law regulating wetlands and waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States (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 Corps 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. 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 40 Code of Federal Regulations [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 (EO) for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this EO states that a federal agency, such as the FHWA and/or Caltrans, 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) 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 Section 2.2.2, Water Quality and Storm Water Runoff, for additional details.

Affected Environment

This section reports the results of the Natural Environment Study (NES) (LSA Associates, Inc. 2010) prepared for the project. As described below, waters of the United States identified within the project site consist of several unnamed tributaries to Manning Creek, a seasonal wetland located in the annual grassland community, and numerous roadside ditches. As shown in Table 2.3.1-1, these features comprise 0.267 acre of wetlands and 0.113 acre of non-wetland waters. Additional water features that are only subject to state jurisdiction include 0.072 acre of isolated waters and roadside ditches, which do not provide a significant nexus to navigable waters and, therefore, are not considered waters of the U.S. CDFG waters, totaling 0.380 acre, consist of the drainages that flow through the project area and are tributary to Manning Creek (see Figure 2.3.1-1).

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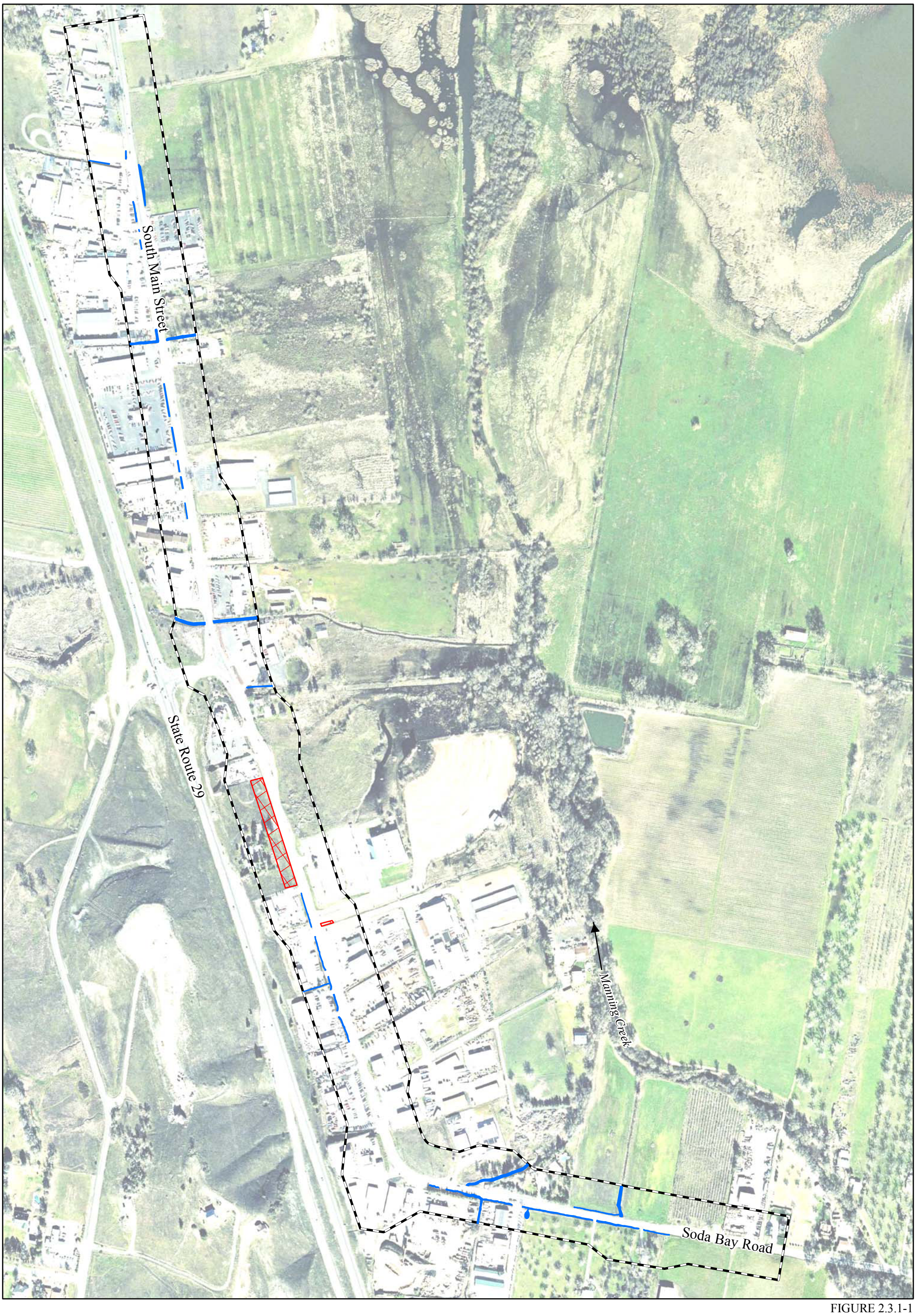

FIGURE 2.3.1-1

Biological Study Area
Jurisdictional Waters (0.452 ac)
Special Status Plants

South Main Street and Soda Bay Road Widening and Bike Lanes Project

N

0 200 400
FEET

SOURCE: BASEMAP - AIRPHOTO USA (2/2006); MAPPING - LSA ASSOCIATES, INC. (2010)

Biological Resources

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Table 2.3.1-1. Jurisdictional Waters

Feature Type	Area (acres)
Waters of the U.S.	
Wetlands	0.267
Non-wetland Waters	0.113
Total Waters of the U.S.	**0.380**
Additional Waters of the State[1]	**0.072**
CDFG Waters	**0.380**

Source: LSA Associates, 2010

[1] Additional waters of the State include features that are not considered waters of the U.S. because they are isolated or otherwise have no significant nexus to navigable waters.

The drainages have all been altered in some form (e.g., channelized, realigned) to accommodate South Main Street, Soda Bay Road, and/or adjacent development. Several of the drainages appear to be perennial while others are clearly intermittent; it is likely all receive supplemental water from urban runoff.

Several roadside ditches occur within the project area, most on the west side of South Main Street and the south side of Soda Bay Road. The ditches appear to collect primarily urban runoff which is discharged into one of the aforementioned drainages.

Manning Creek originates approximately three miles west of the project area in the eastern foothills of the Mayacamas Mountains. Manning Creek flows easterly down through the foothills and then turns north as it reaches the flat terrain around Clear Lake. Manning Creek flows generally east of and parallel to the project area before confluencing with Clear Lake approximately 0.25 to 0.75 mile northeast of the project area.

Environmental Consequences

The project would result in 0.140 acre of permanent impacts and 0.059 acre of temporary impacts to waters of the U.S. The project would also result in 0.022 acre of permanent impacts and 0.047 acre of temporary impacts to additional waters of the State.

Permanent impacts to waters of the U.S./State would occur during placement of fill for road widening, extension of existing culvert crossings, and during construction of lateral utility lines. Temporary impacts to waters of the U.S./State would occur as a result of vehicle access and staging during construction of the lateral utility lines. Table 2.3.1-2 summarizes project impacts to jurisdictional waters.

Table 2.3.1-2. Impacts to Jurisdictional Waters

Feature Type	Permanent	Temporary	Total
Waters of the U.S.			
Wetlands	0.105	0.047	0.152
Non-wetland Waters	0.035	0.012	0.047
Total Waters of the U.S.	**0.140**	**0.059**	**0.199**
Additional Waters of the State[1]	**0.022**	**0.047**	**0.069**
CDFG Waters	**0.140**	**0.059**	**0.199**

Source: LSA Associates, 2010

[1] Additional waters of the State include features that are not considered waters of the U.S. because they are isolated or otherwise have no significant nexus to navigable waters.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures have been incorporated into the project:

Prior to initiating grading, Lake County would obtain any necessary permits from the USACE, RWQCB, and/or CDFG. Lake County would comply with any additional measures or conditions placed on the project by these agencies. In addition, the following measures would be implemented to minimize impacts to waters of the U.S./State.

- In-water work would be limited to the period between June 15 and October 15.
- Temporary and permanent erosion control measures such as weed-free straw and mulch would be applied.
- Following completion of work, any temporary impact areas in the drainages would be restored to preconstruction contours and seeded with native local herbaceous plant species.

The following measures would be implemented to compensate for impacts to waters of the U.S./State.

- Waters of the U.S./State permanently impacted during construction, totaling 0.162 acre (0.140 acre of waters of the U.S. and 0.022 acre of waters of the State), would be mitigated using one of the following methods, or using a combination of the methods:
  - Preservation, creation, and/or restoration of the impacted resources at a minimum ratio of 2:1 (except if replacement resources are created and functional prior to the impacts occurring, then a 1:1 ratio is sufficient). A 1:1 mitigation ratio would require 0.162 acre of mitigation area; a 2:1 mitigation ratio would require 0.324 acre of mitigation area.
  - Through use of in-lieu fee mitigation in accordance with the USACE, Sacramento District's Interim Guidelines for In-Lieu Fee Mitigation. The interim guidelines include an estimated fee schedule based on a 2:1 mitigation ratio.
  - Purchase of preservation credits at the Siegler Valley Mitigation Bank once it is approved. Siegler Valley Mitigation Bank will only offer preservation credits; consequently, the mitigation ratio would be a minimum of 2:1 and would require 0.324 acre of mitigation area.
  - Purchase of creation or preservation credits at another agency-approved mitigation bank at a minimum 1:1 mitigation ratio (for creation credits). A 1:1 mitigation ratio would require 0.162 acre of mitigation area.

Wetlands Only Practicable Finding

Executive Order 11990 requires that all Federal agencies avoid adverse impacts to wetlands unless there is no practicable alternative and that impacts are minimized where unavoidable. Construction in wetlands is to be avoided unless there is no practicable alternative to the proposed construction and the project includes all practicable measures to minimize harm to wetlands. Economic, environmental, and other pertinent factors are taken into account in making this required finding.

As described above, the project would result in 0.140 acre of permanent impacts and 0.059 acre of temporary impacts to waters of the U.S. These impacts would primarily occur as a result of the placement of fill for road widening, extension of existing culvert crossings, and during construction of lateral utility lines.

The impacts to wetlands have been minimized but are unavoidable. Because the project widens the existing South Main Street and Soda Bay Road corridor, impacts to wetland resources cannot be avoided by moving the project or the existing roadway. Wetland features were avoided to the maximum extent feasible during the preliminary design of the lateral utility lines (e.g., along the unnamed drainage to Manning Creek located at Soda Bay Road). Other alternatives to the proposed project were considered during the conceptual engineering and planning stages of the project, as described in Section 1.4.3. However, these alternatives were rejected primarily due to the increased amount of ROW acquisition required along the project alignment.

As described above, measures would be implemented as part of the project to further reduce or avoid wetland impacts. These measures include restrictions on in-water work, erosion control, and revegetation to address water quality impacts, and compensatory mitigation for permanent wetland fill.

Based on the above considerations, it is determined that no practicable alternative exists to the proposed construction in wetlands, and the proposed project includes all practicable measures to minimize harm to wetlands that may result from such use.

2.3.2 Plant Species

Regulatory Setting

The United States Fish and Wildlife Service (USFWS) and CDFG share regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA).

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

The regulatory requirements for FESA can be found at USC 16, 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. The Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and CEQA, PRC, Sections 2100-21177 also apply to the project.

Affected Environment

This section reports the results of the NES (LSA Associates, Inc. 2010) prepared for the project. As documented in the NES, biologists conducted field surveys to identify the vegetation in the project area, consulted regulatory agency databases to help determine

whether there is the potential for rare plants to occur in the project area, and assessed project impacts based on relevant project information and field survey and background research results.

Prior to conducting fieldwork, biologists searched the California Natural Diversity Database (CNDDB) for records of special-status species occurrences in the project vicinity (i.e., Lakeport, Cow Mountain, Upper Lake, Bartlett Mountain, Purdy Gardens, Lucerne, Hopland, Highland Springs, and Kelseyville USGS 7.5-minute quadrangles). In addition, lists of potentially occurring rare plants and federally listed species in the same quadrangles were obtained from the CNPS Inventory of Rare and Endangered Vascular Plants of California and an online database maintained by the Sacramento USFWS office. Updated versions of all three lists were reviewed in March 2011 and October 2012 to determine if the lists included additional plant species that could potentially occur in the project area. Although the updated lists included several additional plant species, if was determined that none of these species could occur in the project area or be affected by the project. These lists are provided in Appendix B of the NES. No state- or federally-listed species occur in the project area.

The project area is dominated by paved roads and other developed land with small areas of plant communities occurring intermittently, including California annual grassland, serpentine grassland, teasel grassland, orchard/row crops, and ruderal/disturbed. Although no state- or federally-listed species occur in the project area, three special-status plant species are expected to occur within the project area, as described below.

Special Status Plant Species

Serpentine grassland is an open grassland community restricted to the central portion of the project area. The serpentine grassland is dominated by a diversity of annual and perennial wildflowers and a select group of grasses. The overall cover of the community is typically low and dominated by native species including squirreltail (*Elymus elymoides*), buckwheat (*Eriogonum nudum* var. *pubiflorum*), clarkia (*Clarkia rubicunda*), tarweed (*Hemizonia congesta* var. *luzulifolia*), California poppy (*Eschscholtzia californica*) and calycadenia (*Calycadenia multiglandulosa*).

After evaluation of the special status plant species potentially occurring in the project area, including two focused plant surveys, the following special status plants were determined to occur in the project area: Bent-flowered fiddleneck (*Amsinckia lunaris*), dwarf soaproot (*Chlorogalum pomeridianum* var. *minus*), and Colusa layia (*Layia septentrionalis*). These three species are CNPS 1B species with no state or federal status. These plant species are typically found on serpentine soils throughout a variety of habitats including chaparral, cismontane woodland, grassland, and coastal bluff scrub. These plant species were identified during the April 2007 (bent-flowered fiddleneck and Colusa layia) and June 2007 (dwarf soaproot) focused surveys described in the NES. All three plants were observed in the serpentine grassland community located in the project area. Approximately 200-300 individuals each of bent-flowered fiddleneck and dwarf soaproot were observed, and approximately 1,000 individuals of Colusa layia were observed (Figure 2.3.1-1).

Environmental Consequences

The project would result in permanent impacts to the plant communities in the project area during construction activities. Minor temporary impacts to these plant communities would also occur. Of the plant communities occurring in the project area, only serpentine grassland is a community of special concern since it often supports special status plant species.

The project would result in permanent impacts to 0.056 acre of the serpentine grassland community where special status plant species occur during road widening and utility work. This take, which includes the removal of vegetation, represents approximately 3.9 percent of the existing serpentine grassland plant community within the Biological Study Area (BSA)[10]. Utility work would also result in 0.178 acre of temporary impacts to serpentine grasslands.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures have been incorporated into the project:

Prior to the start of construction, ESA exclusionary fencing would be installed along the limits of work within and/or adjacent to the serpentine grassland community in the project area to minimize encroachment during construction. ESA exclusionary fencing would consist of orange construction fencing (or equivalent) and would be maintained in good condition until construction is complete. No work or equipment would occur within fenced areas.

Prior to construction, where utility line corridors extend into serpentine grassland, all topsoil would be salvaged and stored in a weed-free location until the utility line work is complete. The topsoil would consist of the upper 12 inches (approximately) of soil and associated vegetation. Following completion of the utility line work, graded areas would be ripped or otherwise decompacted, if necessary. The salvaged topsoil would then be spread evenly on the graded areas and lightly compacted (e.g., “track-walked”). A qualified biologist or botanist familiar with native plant communities and with revegetation experience in construction areas would monitor topsoil salvage and replacement within the serpentine grassland community. Any trees or shrubs removed would be replaced with locally native site-appropriate species.

2.3.3 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The USFWS, the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) and the CDFG are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under CESA or FESA. All special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- NEPA
- Migratory Bird Treaty Act (MBTA)
- Fish and Wildlife Coordination Act
- Federal Endangered Species Act (FESA)

[10] The BSA consists of the project footprint, existing roadways, cut/fill slopes, utility corridors, and access and staging areas. The BSA also includes lands beyond the footprint that could potentially be affected by project construction and/or were determined necessary to inventory in order to perform an adequate analysis of project impacts.

State laws and regulations pertaining to wildlife include the following:

- CEQA
- Sections 1600 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code
- California Endangered Species Act (CESA)

Affected Environment

This section reports the results of the NES (LSA Associates, Inc. 2010) prepared for the project. As documented in the NES, biologists conducted field surveys to identify the wildlife habitat present in the project area, consulted regulatory agency databases to help determine whether there is the potential for any special-status wildlife species to occur in the project area, conducted specific field surveys for special-status species as necessary, and assessed project impacts based on relevant project information and field surveys and background research results.

Prior to conducting fieldwork, biologists searched the CNDDB for records of special-status species occurrences in the project vicinity (i.e., Lakeport, Cow Mountain, Upper Lake, Bartlett Mountain, Purdy Gardens, Lucerne, Hopland, Highland Springs, and Kelseyville USGS 7.5-minute quadrangles). In addition, lists of potentially occurring state- and federally-listed species in the same quadrangles were obtained from the online database maintained by the Sacramento USFWS office. Updated versions of the CNDDB and USFWS lists were reviewed in March 2011 and October 2012 to determine if the lists included additional wildlife species that could potentially occur in the project area. Although the updated lists included several additional wildlife species, if was determined that none of these species could occur in the project area or be affected by the project. These lists are provided in Appendix B of the NES. No state- or federally-listed wildlife species occur in the project area. The database searches and assessment of existing habitat conditions resulted in the potential for the following state species of concern to occur in the project area:

- Cooper's hawk (*Accipiter cooperii*)
- Tricolored blackbird (*Agelaius tricolor*)
- Northwestern pond turtle (*Actinemys marmorata marmorata*)
- Clear Lake hitch (*Lavinia exilicauda chi*)

These species are described in more detail below.

Cooper's Hawk

The Cooper's hawk is a state species of concern; it has no federal status. The Cooper's hawk generally nests in stands of riparian vegetation and forages in open woodlands. Marginally suitable foraging and nesting habitat for Cooper's hawk is present in the project area along two of the drainages where trees are present. Though potentially suitable nest trees are present, the trees are located adjacent to existing development and it is unlikely that Cooper's hawk would nest in the project area. No raptor nests were identified during any of the surveys but given that potential habitat is present, Cooper's hawk could occur in the project area.

Tricolored Blackbird

The tricolored blackbird is a state species of concern. Tricolored blackbirds are highly colonial and nomadic, and are largely endemic to the lowlands of California. They prefer to nest in freshwater marshes with dense growths of herbaceous vegetation such as tules or cattails, but would also nest in thickets of blackberry, mustard, and thistle. Breeding is highly synchronized, with most pairs in the colony initiating nesting within a few days of each other. The synchronization and colonial breeding may have evolved as an adaptation to a rapidly changing environment where the locations of secure nesting habitat and food supplies were likely to change each year.

The grassland and row crop communities in the project area provide suitable foraging habitat for tricolored blackbirds but no nesting habitat is present in the project area. The CNDDB contains one record for tricolored blackbird within five miles of the project area, located approximately 0.75 mile east of the project area on the edge of Clear Lake. No tricolored blackbirds were observed in the project area during field surveys. However, suitable foraging habitat occurs within the project area and, as a result, tricolored blackbirds could occur.

Northwestern Pond Turtle

The northwestern pond turtle is a state species of concern. This species occurs in permanent or nearly permanent bodies of water in a variety of habitats including ponds, marshes, rivers, and irrigation ditches. Suitable habitat must include basking sites and adjacent upland habitat for egg-laying, usually sandy banks or open grassland.

Several of the drainages and the larger ditches within the project area provide potential aquatic habitat for northwestern pond turtle. The drainages and the ditches are all relatively shallow, generally less than one foot deep, and thus provide only marginally suitable habitat for this species. Upland habitat for northwestern pond turtle in the project area is limited due to development located adjacent or in close proximity to the drainages. The CNDDB does not contain any records of northwestern pond turtle within five miles of the project area and no pond turtles were observed during the field surveys. However, given that suitable habitat is present, this species could occur in the project area.

Clear Lake Hitch

The Clear Lake hitch is a state species of concern. This fish species occurs in Clear Lake and associated lakes and ponds. Clear Lake hitch spend most of the year in the lake except for spring spawning which occurs in intermittent tributary streams including, but not limited to, Kelsey, Seigler Canyon, Adobe, Middle, Scotts, Cole and Manning creeks. Clear Lake hitch are opportunistic spawners, and during favorable rainfall years they are known to spawn in most any drainage feature they can access. Spawning typically begins in mid-February and continues through May or early June. Eggs are typically deposited at the stream edges in newly deposited sediment where they hatch in five to ten days. Larval hitch spend a week or more in their larval stream before migrating downstream into Clear Lake.

The tributaries to Manning Creek that flow through the project area could potentially provide spawning habitat for Clear Lake hitch. The CNDDB contains one record of Clear Lake hitch within five miles of the project area, approximately 3.75 miles south in Adobe Creek. This species was not observed during site surveys in April and June 2007, but since there are no known migration barriers downstream of the project area, this species could occur in the project area.

Wildlife Usage

Due to the predominantly developed nature of the project area, wildlife usage is substantially limited and likely only occurs along the larger drainages. No established movement corridors were observed in the project area. Wildlife expected to occur in and around the project area include primarily common mammals such as coyote (*Canis latrans*), black-tailed deer (*Odocoileus hemionous*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*), and common birds such as western scrub jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), and northern mockingbird (*Mimus polyglottos*).

Environmental Consequences

Due to the predominantly developed nature of the project, no substantial impacts to animal species are expected to occur. Impacts to state species of concern are described below.

Cooper's Hawk

The project may remove potential nest trees and/or discourage Cooper's hawk from nesting in the project area during construction. Land development and other transportation projects in the vicinity of Clear Lake could result in impacts to Cooper's hawk. Since the project could impact Cooper's hawk through tree removal and/or discouraging them from nesting, the project could contribute to cumulative effects to this species. However, since the project would only remove a few trees and would implement measures to avoid impacting nesting Cooper's hawk, the project would not substantially contribute to cumulative effects to this species.

Tricolored Blackbird

The project would result in the loss of 0.176 acre of grasslands and row crops that are potential foraging habitat for tricolored blackbird. Land development and other transportation projects in the vicinity of Clear Lake could result in impacts to tricolored blackbird. Since the project would result in the loss of foraging habitat for tricolored blackbird, the project could contribute to cumulative effects to this species. However, since the loss of foraging habitat is minor relative to the abundance of foraging habitat in the vicinity of Clear Lake, the project would not substantially contribute to cumulative effects to tricolored blackbird.

Northwestern Pond Turtle

The project could impact northwestern pond turtle during road widening, which would require that the existing culverts be lengthened and that some of the ditches be filled. These activities could directly impact pond turtles if they are present when construction begins, and would result in 0.140 acre of permanent impacts and 0.059 acre of temporary impacts to suitable aquatic habitat for pond turtle. Land development and other transportation projects in the vicinity of Clear Lake could result in impacts to northwestern pond turtle. Since the project would result in the loss of aquatic habitat for northwestern pond turtle, the project could contribute to cumulative effects to this species. However, since the loss of foraging habitat is minor and the suitability is marginal, the project would not substantially contribute to cumulative effects to northwestern pond turtle.

Clear Lake Hitch

The project could impact Clear Lake hitch during road widening, which would require that the existing culverts be lengthened and that some of the ditches be filled. These activities could directly impact hitch if they are present when construction begins and would result in

0.140 acre of permanent impacts and 0.059 acre of temporary impacts to potential spawning habitat for Clear Lake hitch. Land development and other transportation projects in the vicinity of Clear Lake could result in impacts to Clear Lake hitch. Since the project would result in the loss of potential spawning habitat for Clear Lake hitch, the project could contribute to cumulative effects to this species. However, since the loss of potential spawning habitat is minor and the suitability of the habitat is marginal, the project would not substantially contribute to cumulative effects to Clear Lake hitch.

Migratory Birds

The proposed project could potentially affect migratory birds nesting in the project area if they are present when construction begins. Specifically, the project could disturb tree-nesting species potentially utilizing the remnant orchard or landscape trees in the project area, or other species (e.g., swallows) that could utilize the underside of the existing box culverts to nest. Likewise, the project could have a similar impact on ground nesting bird species. Disturbance of these birds during their nesting season (March 2 to August 31) could result in "take" which is prohibited under the MBTA and Section 3503 of the California Fish and Game Code.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures have been incorporated into the project:

Cooper's Hawk

If possible, all suitable nest trees that will be impacted by project construction shall be removed during the non-nesting season (between September 1 and March 1). If this is not possible and project construction is to begin during the nesting season (March 2 – August 31), all suitable nest trees within the limits of work shall be surveyed by a qualified wildlife biologist proficient in the identification of bird species and nesting behavior prior to initiating construction-related activities. Surveys shall be conducted no more than 14 days prior to the start of work. If an active nest is discovered, an appropriate buffer would be established around the nest tree and delineated using orange construction fence or equivalent. The size of the buffer would be determined based on the location of the tree relative to existing development, activity, etc. and the sensitivity of the nest to disturbance, as determined by a qualified biologist proficient in raptor and nesting behavior identification. The buffer would be maintained in place until the end of the breeding season or until the young have fledged, as determined by a qualified biologist.

If no nesting is discovered, construction can begin as planned. Construction beginning during the non-nesting season and continuing into the nesting season would not be subject to these measures.

Tricolored Blackbird

Disturbance of the grassland and row crop communities resulting from construction activities would be minimized to the extent feasible.

Northwestern Pond Turtle

Prior to the start of in-water work, the work area would be surveyed by a wildlife biologist with experience in the identification of pond turtles. If turtles are observed in the project area, they would be relocated outside of the work area. Following completion of work, any temporary impact areas in the drainages would be restored to preconstruction contours. To

avoid entrapment of pond turtles and other reptiles and mammals, any fiber blankets installed for erosion control after construction would be free of any plastic mesh netting and contain only natural plant fiber mesh.

Clear Lake Hitch

In-water work would not begin until June 15. To the maximum extent feasible, construction of the new culverts and the extension of the existing culverts would be constructed with the minimum gradient necessary and so the bottom sill of the culvert is at or below the existing channel grade. Following completion of work, any temporary impact areas in the drainages would be restored to preconstruction contours.

Migratory Birds

- If possible, all trees or other significant vegetation that will be impacted by project construction would be removed during the non-nesting season (between September 1 and March 1). If this is not possible and project construction is to begin during the nesting season (March 2 through August 31), all suitable nesting habitat within the limits of work would be surveyed by a qualified wildlife biologist proficient in the identification of bird species and nesting behavior prior to initiating construction-related activities. Surveys would be conducted no more than 14 days prior to the start of work. If an active nest is discovered, an appropriate buffer would be established around the nest tree and delineated using orange construction fence or equivalent. The size of the buffer would be determined based on the location of the tree relative to existing development, activity, etc. and the sensitivity of the nest to disturbance, as determined by a qualified biologist. The buffer would be maintained in place until the end of the breeding season or until the young have fledged, as determined by a qualified biologist.

  If no nesting is discovered, construction can begin as planned. Construction beginning during the non-nesting season and continuing into the nesting season would not be subject to these measures.

- Prior to the start of the nesting swallow season (March 2 to August 31), a qualified company would be hired to install exclusion netting (or equivalent material) on the underside of the existing culverts to prevent swallows or other birds from nesting. Exclusion structures would be left in place and maintained until the existing culvert is removed, or August 31, whichever is earlier; or
- During the nesting season (or as long as swallows attempt to nest on the culverts, as determined by a qualified biologist) all swallow nests would be removed from the underside of the culvert on a daily basis to ensure that no nesting occurs. Nests would be removed using a high powered waters hose, a long pole, or equivalent method.

2.3.4 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (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 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a no effect finding. 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

This section reports the results of the NES (LSA Associates, Inc. 2010) prepared for the project. As documented in the NES, biologists conducted field surveys to identify the vegetation and wildlife habitat in the project area, consulted regulatory agency databases to help determine whether there is the potential for special-status plant and wildlife species to occur in the project area, conducted specific field surveys for special-status species as necessary, and assessed project impacts based on relevant project information and field survey and background research results.

Prior to conducting fieldwork, biologists queried the CNDDB for records of special-status species occurrences in the project vicinity (i.e., Lakeport, Cow Mountain, Upper Lake, Bartlett Mountain, Purdy Gardens, Lucerne, Hopland, Highland Springs, and Kelseyville USGS 7.5-minute quadrangles). In addition, lists of potentially occurring state- and federally-listed species in the same quadrangles were obtained from the online database maintained by the Sacramento USFWS office. Updated versions of the CNDDB and USFWS lists were reviewed in March 2011 and October 2012 to determine if the lists included additional wildlife species that could potentially occur in the project area. An updated USFWS list is included in Appendix G dated September 18, 2011 as accessed on October 17, 2012. Although the updated lists included several additional wildlife species, if was determined that

none of these species could occur in the project area or be affected by the project. These lists are provided in Appendix B of the NES. No state- or federally-listed threatened or endangered species, as designated by CESA or FESA occur in the project area. Therefore, there is no effect on federally-listed threatened or endangered species.

Environmental Consequences

There are no federally or state listed threatened or endangered species expected to occur within the project area that would be impacted by the project.

Avoidance, Minimization, and/or Mitigation Measures

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

2.3.5 Invasive Species

Regulatory Setting

On February 3, 1999, President Clinton signed EO 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.

Affected Environment

This section reports the results of the NES (LSA Associates, Inc. 2010) prepared for the project.

There are several ruderal/disturbed and annual grassland areas within the project area dominated by non-native and potentially invasive plant species. Vegetation in ruderal/disturbed areas includes horticultural trees and weedy nonnative species including bindweed (*Convolvulus arvensis*), filaree (*Erodium cicutarium*), alkali mallow (*Malvella leprosa*), yellow star-thistle (*Centaurea solstitialis*), chicory (*Cichorium intybus*), mustard (*Brassica nigra*), horseweed (*Conyza canadensis*), and prickly lettuce (*Lactuca serriola*). Plant species growing in the California annual grassland community include Italian ryegrass (*Lolium multiflourm*), slender wild oat (*Avena barbata*), common ripgut grass (*Bromus diandrus*), and medusahead (*Taeniatherum caput-medusae*).

Environmental Consequences

Construction-related activities would potentially promote the distribution of invasive plant species through ground disturbance.

Avoidance, Minimization, and/or Mitigation Measures

To avoid the introduction of invasive species into the project area during project construction, contract specifications would include, at a minimum, the following measures:

- All earthmoving equipment to be used during project construction would be thoroughly cleaned before arriving on the project site.

- All seeding equipment (i.e., hydroseed trucks) would be thoroughly rinsed at least three times prior to arriving at the project site and beginning seeding work.
- To avoid spreading any non-native invasive species already existing on-site, to off-site areas, all equipment would be thoroughly cleaned before leaving the site.

2.4 Cumulative Impacts

Regulatory Setting

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

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

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

Affected Environment

Regional Context

This document is based on accepted, regional land use forecasts for 2035, and assumes transportation improvements programmed within the same time frame. The effects evaluated with the project include the cumulative effects of development within the region. Permanent cumulative effects of the proposed project would be beneficial, as roadway widening and addition of pedestrian and bicycle facilities would improve traffic flow and enhance safety for pedestrians and bicyclists.

Local Context

The proposed South Main Street and Soda Bay Road Widening and Bike Lanes project was analyzed to determine whether environmental effects that would be experienced locally, rather than regionally, could become considerable when assessed in combination with other reasonably foreseeable future projects in the project area. Projects are considered “reasonably foreseeable” if they: (a) have applications pending with a government agency; (b) are included in an agency’s budget or capital improvement program; or (c) are foreseeable future phases of existing projects.

Below is a list of proposed transportation improvement projects in Lake County listed in the Lake County 2010 Regional Transportation Improvement Program (RTIP; Lake County/City Area Planning Council 2010). The RTIP is created every five years in support of the STIP and identifies priority projects to be implemented during that five-year time period. Of the proposed projects listed below, only the Fairgrounds Sidewalks Project is in the project vicinity, and none of the proposed transportation improvement projects connect to the project alignment.

- Cole Creek Bridge Replacement on Soda Bay Road (Lake County): Replace bridge to accommodate flood flows, improve safety, and meet traffic demand.
- Saint Helena Bridge Replacement on Hildebrand Road (Lake County): Replace bridge to improve safety and meet traffic demand.
- Countywide Rehabilitation Project (Lake County): Rehabilitate roadway at various locations throughout the County.
- Lake County Transit Authority Vehicle Purchases (Lake Transit Authority): Various projects for replacement of transit vehicles that have reached the end of their useful life.
- Clearlake Arterial Rehabilitation Project (City of Clearlake): Rehabilitate high priority segments of existing system in the City of Clearlake.
- State Street Reconstruction and Widening (Lake County): Rehabilitate and widen existing roadway.
- Fairgrounds Sidewalks Project (City of Lakeport): Provide sidewalk where none currently exists in heavy use urban area.
- Kelseyville Walkway & Street Lighting (Lake County): Provide sidewalks where none currently exist in heavy use area, enhanced with decorative street lighting and other improvements.
- Merritt Road Bridge (Lake County): Replace low water crossing, which becomes inaccessible during winter months, with bridge to create year round accessibility.
- Diener Drive to North Route 175 Upgrade Expressway (Caltrans): Segment of highway identified as part of Principal Arterial Corridor in the Route 20 Corridor Study. Project will provide four-lane facility to reduce congestion and delay and improve efficiency of goods movement through the region.
- State Route 29 (Caltrans, PM 23.8/31.6) Expressway to Freeway Project: Construction to be initiated in 2014.
- State Route 175 (Caltrans, PM 4.9/28.0) Improvements: Construction to be initiated 2011/2012.

As of October 2009, fifteen residential developments and five commercial developments were proposed or recently completed in the City of Lakeport. The residential developments consisted of a total of 464 residential units. None of the proposed developments would be along the project alignment, but two of the residential projects would be just north of the project limits (Victorian Village [complete] and Harper's Landing). These two proposed developments would consist of 166 residential lots. The major proposed developments in Lake County (i.e., Anderson Springs Sewer Project, Cristallago Project, Valley Oaks Planned Development, Bottle Rock Power Geothermal Development, Calpine Geothermal Development, Spring Valley Water Project) are not near the project area.

Large-scale transportation projects and other actions requiring federal approval are generally subject to laws and permit processes requiring consideration of and mitigation for impacts to special-status species and their habitats; wetlands and waters of the U.S., water quality; cultural resources; and parks and recreation resources. These laws and requirements assure that the impacts of such undertakings would be fully mitigated. Minimization and mitigation measures required for these projects would ensure that they would have no contribution to cumulative impacts.

Primary threats to biological and wetlands resources are from urban and agricultural development, however, these types of local projects are not consistently subject to the types of laws and permit requirements as federal actions. Therefore, the discussion of cumulative impacts includes local development projects for which no, or only limited, regulatory protections exist, or for which such regulation might be applied inconsistently.

Environmental Consequences

The proposed South Main Street and Soda Bay Road Widening and Bike Lanes project would result in no adverse impacts to a number of environmental resources, including existing and future land use, the coastal zone, wild and scenic rivers, parks and recreation, growth, farmlands/timberlands, community character and cohesion, relocations, environmental justice, visual/aesthetics, threatened and endangered species, traffic and transportation, bicycle and pedestrian facilities, and air quality. Therefore, the proposed project would not contribute considerably to cumulative impacts to these environmental resources.

The discussion below is limited to environmental resources that have the potential to be impacted cumulatively by the proposed project and reasonable foreseeable projects in the project area.

Cultural Resources

The proposed project is located in an area that is sensitive for archaeological resources. As described in Section 2.1.5, the project is anticipated to have an adverse effect on a historic property. In accordance with federal and state guidelines, a MOA would be prepared to address the treatment of site CA-LAK-2077, human remains, and cultural materials. A Historic Property Treatment Plan would be developed for implementing specific archaeological site evaluation and treatment measures, specific human remains treatment measures, and for protecting the Big Valley Rancheria Reburial Site and other resources along the project alignment. These mitigation measures would minimize impacts to identified and unidentified resources. Because impacts to cultural resources would be minimized by the mitigation measures specified in Section 2.1.5, the project does not contribute substantially to a cumulative impact with these other projects, nor do the projects taken together result in considerable cumulative impacts on cultural resources.

Water Quality and Storm Water Runoff

Cumulative Impacts to Surface Waters. The proposed project would increase the total impervious surface within the project limits, but such an increase would be minimal and would not affect the velocity or volume of downstream flow or result in substantial hydraulic changes or erosion. Other projects in the vicinity could increase the amount of impervious surface but would constitute only a small percentage of the total drainage area. Therefore, the potential for future development in the project area to increase impervious surfaces and increase runoff is negligible. In addition, each project would be subject to environmental review and agency permitting that would require avoidance, minimization, and/or mitigation

measures to address increases in storm water runoff or impacts to water quality in compliance with the NPDES Permit or other local regulations. Such measures would include preparation and implementation of storm water treatment plans, construction of detention/infiltration basins or other control measures.

Cumulative Impacts to Groundwater. The project would not result in any adverse effects on groundwater quantities. However, there is a possibility for mobilized pollutants to enter the groundwater through recharge during project construction. As described in Section 2.2.2, Water Quality and Storm Water Runoff, under *Avoidance, Minimization and/or Mitigation*, BMPs would be incorporated into the project in accordance with the NPDES permit for general construction activity. Other improvements in the vicinity would be required to implement similar measures. With implementation of adequate BMPs, cumulative effects on groundwater would not be adverse.

Geology/Soils/Seismic/Topography

The proposed project would comply with all county, state and federal regulations relating to seismic and geologic hazards. The proposed project would be designed and constructed in accordance with appropriate safety regulations such as OSHA requirements for trenching, shoring, and safety equipment usage. The project plans, specifications and special provisions will include project specific requirements for imported soil, embankment fill, structural section materials, and trench backfill. Effects associated with the proposed project would have no effect on other sites or projects in the vicinity. Therefore, the proposed project would not contribute substantially to a cumulative impact with adjacent projects, nor do the projects taken together result in a considerable cumulative impact.

Hazardous Waste/Materials

Implementation of the proposed project could result in the release of soil and groundwater contaminants, including petroleum hydrocarbons, and could expose construction workers to lead associated with paint striping. Planned projects in the vicinity could also release hazardous materials associated with construction activities. However, the proposed project and other proposed improvements would be required to adhere to federal, state, and local hazardous materials regulations. As a result, the overall cumulative impact would be minor and is not anticipated to be adverse.

Biological Resources

Land development and other transportation projects in the vicinity of Clear Lake could result in impacts to waters of the U.S./State. Since the project would result in impact to these waters of the U.S./State and CDFG waters, the project could contribute to cumulative effects to these resources. However, since the loss of waters of the U.S./State and CDFG waters is relatively minor and compensatory mitigation would be provided, the project would not substantially contribute to cumulative effects to waters of the U.S./State or CDFG waters.

Land development and other transportation projects in the vicinity of Clear Lake could result in impacts to serpentine grassland and associated species, including bent flowered fiddleneck, dwarf soaproot, and *Colusa layia*. Since the project would result in permanent impacts to serpentine grassland where these species occur, the project would contribute to cumulative effects to bent-flowered fiddleneck, dwarf soaproot, and *Colusa layia*. However, since the project would only impact a small area of serpentine grassland and would implement measures to avoid and minimize impacts, the project would not substantially contribute to cumulative effects to serpentine grassland or its associated species, bent-flowered fiddleneck, dwarf soaproot, and *Colusa layia*.

Land development and other transportation projects in the vicinity of Clear Lake could impact California species of special concern, including Cooper's hawk, tricolored blackbird, western pond turtle, and Clear Lake hitch. Land development could also impact native birds protected under the MBTA. Since the project would have permanent impacts on breeding or foraging habitat for these species, it would contribute to cumulative effects to California species of special concern and native nesting birds. However, since the project would only impact a small area of potential habitat and would implement measures to avoid and minimize impacts, the project would not impact a substantial portion of the populations of these species. Therefore, the proposed project does not substantially contribute to cumulative effects to California species of special concern and native nesting birds.

Avoidance, Minimization, and/or Mitigation Measures

This analysis shows that the incremental effects of the proposed project, combined with the effects of past, present, and probable future projects are not cumulatively considerable for this project. No avoidance, minimization or mitigation measures are required in addition to those already contained in this document.

2.5 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 gas (GHG) emissions, 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 in 1988, has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles make up the largest source (second to electricity generation) of GHG emitting sources. The dominant GHG emitted is CO_2, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas 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 resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)[11].

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of

[11] http://climatechange.transportation.org/ghg_mitigation/

vehicle miles traveled (VMT), 3) transitioning to lower GHG emitting fuels, and 4) improving vehicle technologies. To be most effective all four strategies should be pursued collectively.

The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

Regulatory Setting

State Regulations

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 GHG emissions and climate change.

Assembly Bill 1493 (AB 1493), Pavley. Vehicular Emissions: Greenhouse Gases, 2002: requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year. 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 (EO) S-3-05: (signed on June 1, 2005, by former Governor Arnold Schwarzenegger) the goal of this EO is to reduce California's GHG emissions to: 1) year 2000 levels by 2010, 2) year 1990 levels by the 2020, and 3) 80 percent below the year 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

AB 32, the Global Warming Solutions Act of 2006, Núñez and Pavley: AB 32 sets the same overall GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan, (which includes market mechanisms) and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."

Executive Order S-20-06: (signed on October 18, 2006 by former Governor Arnold Schwarzenegger) further directs state agencies to begin implementing AB 32, including the recommendations made by the California's Climate Action Team.

Executive Order S-01-07: (signed on January 18, 2007 by former Governor Arnold Schwarzenegger) set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least ten percent by the year 2020.

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

Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. This policy contributes to the Department's stewardship goal to preserve and enhance California's resources and assets.

Federal Regulations

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 the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level GHG 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 a 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 EO 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 national 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 (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)—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 GHG 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, 2009[12]. 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 Presidential Memorandum on May 21, 2010.[13]

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 (CO_2) per mile, (the equivalent to 35.5 miles per gallon [MPG] if the automobile industry were to meet this CO_2 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).

On November 16, 2011, U.S. EPA and NHTSA issued their joint proposal to extend this national program of coordinated greenhouse gas and fuel economy standards to model years 2017 through 2025 passenger vehicles.

Local Regulations

To date, no quantitative GHG emission thresholds or similar criteria have been established by the LCAQMD to evaluate the cumulative impact of a single project on global climate change. In the absence of quantitative GHG emissions thresholds, consistency with adopted programs and policies is used by many jurisdictions to evaluate the significance of cumulative impacts. The California Air Pollution Control Officers Association published a White Paper in January 2008 that explored several options for setting numeric, non-zero thresholds. The White Paper acknowledges medium to high uncertainty as to each potential numeric threshold. Based on the above, none of the potential numeric thresholds would be appropriate for application to this project. Thus, for the purposes of analyzing this project, and consistent with OPR's recently adopted CEQA guideline amendments, the potential climate change impacts will be analyzed qualitatively without setting a specific quantitative threshold.

Project Analysis

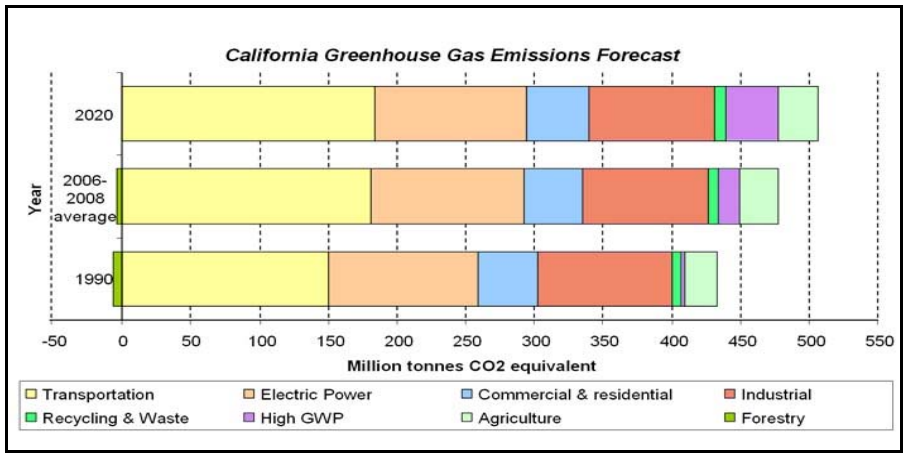
An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.[14] In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively

[12] http://www.epa.gov/oms/climate/regulations.htm#1-1
[13] http://epa.gov/otaq/climate/regulations.htm
[14] 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 South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

considerable" (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 mandated by AB 32 contains the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, ARB released the GHG inventory for California (forecast last updated: October 28, 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.

Figure 2.5-1 California Greenhouse Gas Forecast



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

The Department 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.[15]

Operation Emissions

The proposed project would widen the roadway to accommodate paved shoulders, middle turning lane, and wider travel lanes. This is a safety improvement project that once completed, would not result in increased emissions of GHGs because the project would not increase vehicle trips or vehicle miles traveled on the roadway. Therefore, no new regional vehicle emissions would occur.

The proposed project is not growth inducing as it is not capacity enhancing and does not generate additional vehicle travel. Roadway improvements are only expected to improve

[15] 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

traffic operations. The project is not needed in response to growth forecasts and does not provide excess capacity for unanticipated growth. Since the project is not a "land use" project, new vehicular trips are not generated by the project. By improving traffic operations (thus relieving congestion), long-term generation of GHG emissions and contribution to global warming due to the project would be reduced.

Consistency with Plans and Policies

The 44 Early Action Measures adopted by the CARB, as required under AB 32, are not specifically applicable to this project. Therefore, the project would not conflict with early action items. The proposed project would enhance operations on South Main Street and Soda Bay Road by improving the safety of the roadway. The improvements would not increase traffic on the roadways. In addition, the project would provide additional pavement width to improve the safety of bicyclists, which could contribute to an overall reduction in GHG emissions associated with the use of the roadway. As such, this project would not conflict with the goals of AB 32 and SB 375, which require planning agencies to develop strategies for meeting GHG emission targets as part of regional transportation plans. Therefore, the project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Based on the project's consistency with these measures, the project would not have a significant impact on global climate change.

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.

The project would require grading and excavation to widen and/or realign sections of the roadway. Model calculations for construction GHG emissions consider all construction activities associated with this project. The model inputs assume a construction start date of 2013 and a total construction duration period of 24 months. Model results indicate that the estimated total project daily construction emissions would be less than 0.77 metric tons of CO_2. The model worksheets, including inputs and assumptions, are included as Appendix E.

CEQA Conclusion

Based on the review and analysis of the proposed South Main Street and Soda Bay Road Widening and Bike Lanes project, it is anticipated that implementation of this project would not adversely impact global climate change. The project would not generate GHG emissions that would have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

Greenhouse Gas Reduction Measures

AB 32 Compliance

The Department continues to be actively involved on the Governor's Climate Action Team as ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies the Department 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 congestion. The Strategic Growth Plan relies on a complete systems approach to attain CO_2 reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements as depicted in Figure 2.5-2: The Mobility Pyramid.

Figure 2.5-2 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 works closely with local jurisdictions on planning activities but does not have local land use planning authority. The Department assists 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.

Table 2.5-1 summarizes the Departmental 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 2.5-1 Climate Change/CO_2 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 Transportation 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, ARB, 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, ARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.18

The following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

- Landscaping reduces surface warming, and through photosynthesis, decreases CO_2. As necessary, the project would include revegetation of disturbed areas along the roadway alignment where vegetation removal would occur to help offset any potential CO_2 emissions increase.
- The contractor would comply with the LCAQMD's rules, ordinances, and regulations in regards to air quality restrictions.

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, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from 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 on October 14, 2010 outlining recommendations to President Obama for how Federal Agency policies and programs can better prepare the 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, former Governor Arnold Schwarzenegger signed EO S-13-08 which directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change. This EO 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)[16], which summarizes the best

[16] http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF

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 EO 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 the California Environmental Protection Agency; 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.

The Resources Agency was also directed to request the National Academy of Science to prepare a Sea Level Rise Assessment Report by December 2010[17] 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

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 as of the date of EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

[17] Pre-publication copies of the report, *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future*, were made available from the National Academies Press on June 22, 2012. For more information, please see http://www.nap.edu/catalog.php?record_id=13389.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. The Department continues to work on assessing the 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 effects, 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 EO S-13-08 and is mobilizing to be able to respond to the National Academy of Science Sea Level Rise Assessment Report.

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Chapter 3 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps planners to determine the necessary scope of environmental documentation, the level of analysis required, and to identify potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods. This chapter summarizes the results of the County's efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

3.1 Public Participation

On September 9, 2009, the DPW sent a letter to business owners and residents along the project alignment, and to applicable emergency service providers, to provide information about the proposed project and to solicit comments, questions or concerns regarding the proposed project. Four comment letters were received from business owners and residents along the project alignment. In general, the letters expressed support for the proposed project, and raised questions and concerns about the impact of the ROW acquisitions and construction impacts. For more information, refer to Section 2.1.1 of this document and Appendix A of the Community Impact Assessment prepared for the proposed project (LSA Associates, Inc., 2010).

A public open house/informational meeting was held at the Lake County Courthouse in the City of Lakeport on May 23, 2011, between: 5:00 p.m. and 7:00 p.m. Exhibits of the proposed project alignment and informational exhibits describing the environmental process were on display, and hard copies of the draft environmental document and supporting technical studies were available for the public to view. Approximately fifteen members of the community attended. Verbal questions included queries about the project design, ROW acquisition, and impacts to existing driveways and property frontage. Members of the consultant team (design and environmental), Lake County staff, and Caltrans staff were in attendance to answer questions and receive public comment. Two comment cards were filled out and submitted at the information meeting. All comments have been addressed in the Response to Comments Section (3.5).

3.2 Project Coordination

3.2.1 Project Development Team Meetings

The PDT is a broad-based technical committee consisting of Caltrans Local Assistance staff, the DPW Project Manager, and representatives of the various functional units that are charged with project development and documentation. PDT members include representatives from Caltrans environmental and engineering divisions; Lake County ROW, surveyor, planning, engineering, roadway, and utility staff; the City; and consultant team specialists to address the funding, engineering, environmental, and utility coordination needs of the project. The PDT meets on a regular basis to advise and assist the project managers in directing the course of project design and the technical studies. The PDT meeting minutes provide recordation of key project decisions over the course of project development.

3.2.2 Utility Provider Coordination

PG&E (Electric), AT&T (Telephone), and MediaCom (Cable TV) are planned to participate as joint trench agents in an underground utility district to remove the overhead poles from along each side of South Main Street and Soda Bay Road within the project limits. Utility coordination began in 2007 at the beginning of the project's environmental clearance phase. The project team has since been coordinating directly with the utility companies and with the County and City utilities to determine existing utility conflicts and utility relocation strategies. To date, the team has facilitated more than ten utility coordination meetings, at least three of which included walking field reviews of the project site. Preliminary joint trench plans have been developed by the County in anticipation of coordinating the underground district construction.

3.3 Agency Consultation

Consultations with regulatory agencies have been conducted regarding project features, potential impact issues, technical methodologies, and documentation. The Distribution List (Chapter 5) identifies the federal, state, and local agencies that received notification of the availability of this environmental document for review.

The CDFG was contacted by phone on August 27, 2008 to discuss the potential for Clear Lake hitch to occur in the drainages in the project area and to discuss potential avoidance and minimization measures. The CDFG recommended that in-water work should be limited to June 15 or later and a preconstruction survey be conducted to avoid potential effects on this species.

The USACE was contacted on September 23, 2009 requesting verification for a preliminary delineation of the potential Waters of the United States on the project site, and a field verification was conducted on February 26, 2010. Verification was received from the USACE on September 27, 2010.

Caltrans consulted with the SHPO to obtain concurrence on the eligibility of historic properties located within the Area of Potential Effects for the National Register of Historic Places. A concurrence letter from the SHPO that supports the findings summarized in this IS/EA was received on February 3, 2011. On September 18, 2012, Caltrans and the SHPO signed a MOA for treatment of cultural resources in the APE. These treatments include data recovery at archaeological sites CA-LAK-53, CA-LAK-867, CA-LAK-2077, and CA-LAK-2079; establishing Environmentally Sensitive Areas during project construction to protect cultural resources from project ground-disturbing activities; reporting requirements for archaeological fieldwork; Native American consultation; treatment of Native American human remains; and procedures for unanticipated discoveries.

3.4 Cultural Resources Interested Parties Consultation

On October 23, 2007, a letter was sent describing the Project with a map depicting the APE to the Native American Heritage Commission (NAHC) in Sacramento requesting a

review of their Sacred Lands File for any Native American cultural resources that might be affected by the proposed project. Also requested were the names of Native Americans who might have information or concerns about the APE. The NAHC had no concerns, and provided a list of Native American contacts.

On June 9, 2008, a letter was sent describing the project with a map depicting the APE to the Native American representatives on the contact list provided by the NAHC, requesting any information or concerns regarding the proposed project area. One response to the letters was received and follow-up telephone calls were made to contact those who did not respond. The letter response requested that artifacts on the project site be protected. The follow-up phone calls revealed that three of the contacts were no longer with the specified tribal group; two phone calls were not answered and no response has been received to date; one contact requested no further involvement in the project; and one contact led to ongoing consultations (see paragraph below).

Regular consultation has occurred with Sarah Ryan, Environmental Director, Environmental Protection Office, Big Valley Rancheria, throughout the course of this project. Consultation has included email and telephone communication, and office and field visits with Ms. Ryan regarding the archaeological field surveys, geoarchaeological studies, the presence/absence and evaluation studies, possible Traditional Cultural Properties, and the Big Valley Rancheria Reburial Site. Consultation with the Big Valley Rancheria will continue during the course of the project.

On January 17, 2008, a letter was sent describing the project with a map depicting the project area to the County Historical Courthouse Museum in Lakeport requesting information or concerns regarding historical sites within the APE. Follow-up telephone calls were made after no response to the letters had been received. One member of the Lake County Historical Society stated that there is an archaeological site close to the most easterly boundary on Soda Bay Road. None of the other contacts had any concerns.

3.5 Response to Comments

The following comments were submitted to the County by letter, email, or via the completion of comment cards at the informational meeting that was held on May 23, 2011 during the public review period between May 11, 2011 and June 10, 2011. Over the course of the comment period, seven individuals or agencies provided comment. The following responses have been prepared by the County to address all comments received during the public review period. As necessary, and as indicated below, revisions (e.g., corrections or clarifications) have been made to this environmental document in response to comments received. Changes to the body of this document are indicated in the text by a vertical line in the margin.

1

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

JERRY BROWN
GOVERNOR

June 10, 2011

K.L. Brown
Lake County
255 N. Forbes Street, Rm 309
Lakeport, CA 95453

Subject: South Main Street and Soda Bay Road Widening and Bike Lanes Project
SCH#: 2011052028

Dear K.L. Brown:

1.1

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on June 9, 2011, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

1

SCH# 2011052028
Project Title South Main Street and Soda Bay Road Widening and Bike Lanes Project
Lead Agency Lake County

Type MND Mitigated Negative Declaration

Description The Lake County Department of Public Works proposes to add a center turning lane, construct Class II bicycle lanes, underground overhead utility lines, and improve utility infrastructure on South Main Street and Soda Bay Road in the south Lakeport area. The project area consists of a 0.5-mile segment of South Main Street, from the Lakeport city limits to the State Route 175 extension, and a 0.75-mile segment of Soda Bay Road extending south from SR-175 to approximately 0.1-mile west of Manning Creek. The goal of the project is to remove overhead utilities, improve traffic flow, and provide for safe pedestrian and bicycle movement along South Main Street and Soda Bay Road.

Lead Agency Contact

Name K.L. Brown
Agency Lake County
Phone 707 263 2341 **Fax**
email
Address 255 N. Forbes Street, Rm 309
City Lakeport **State** CA **Zip** 95453

Project Location

County Lake
City Lakeport
Region
Lat / Long 39° 01' 02" N / 122° 54' 43" W
Cross Streets from 0.5 mi north of South Main Street intersection with SR 175 to 0.75 mi south
Parcel No. County ROW, with acquisitions
Township 14N **Range** 9W **Section** 31,36 **Base**

Proximity to:

Highways Hwy 175, 29
Airports Lampson Field
Railways
Waterways Manning Creek, Clear Lake
Schools Legacy, Mendo College
Land Use County road ROW; adjacent parcels: Agriculture, Service Commercial, Community Comm., Hwy Comm., Heavy Industrial

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 2; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 1; Air Resources Board, Transportation Projects; Regional Water Quality Control Bd., Region 5 (Sacramento); Native American Heritage Commission

Date Received 05/11/2011 **Start of Review** 05/11/2011 **End of Review** 06/09/2011

Note: Blanks in data fields result from insufficient information provided by lead agency.

2

Subject: FW: South Main Street and Soda Bay Widening and Bike Lanes Project

From: Kevin Ingram
Sent: Friday, July 01, 2011 3:58 PM
To: Ken Brown
Subject: FW: South Main Street and Soda Bay Widening and Bike Lanes Project

Ken,

Please find below the response from LAFCO regarding the Main Street & Soda Bay Widening Project.

Kevin

-----Original Message-----
From: John Benoit [mailto:johnbenoit@surewest.net]
Sent: Friday, July 01, 2011 3:21 PM
To: Kevin Ingram
Subject: Re: South Main Street and Soda Bay Widening and Bike Lanes Project

2.1 Kevin,

LAFCO approval in some form is required to grant permission to the city to extend water service beyond its jurisdictional bounds. If the City intends on annexation, the initial study should be used as the CEQA document for the annexation and therefore LAFCO should be included as a responsible agency with jurisdiction for carrying out a portion of this project. As annexation might not be occurring in the foreseeable future and the fact an agreement between two public agencies does not apply here (Gov. Code Section 56133 (e), an out of area service agreement would be required by LAFCO. Typically these agreements are exempt from CEQA provided their purpose is not to facilitate development and in this case LAFCO could use the environmental document to meet its CEQA obligations in granting an out of area service agreement. It should be noted that Gov. Code section 56133 (b) essentially states LAFCO may grant these extension in anticipation of a change of organization. Typically in our policies the time line is within two years.

However, due to Health and Safety concerns an Out of Area Service Agreement may be approved by LAFCO with documentation of the threat. At issue is the project is not entirely within the City's Primary or Secondary Sphere of Influence. The City's General Plan is recommending a portion of the north side of Soda Bay road to be in the City's Sphere. Lafco will be adopting an updated Sphere of Influence per the LAFCO law in the second half of 2011.

2

2.2 In light of the above and to provide the most flexibility and cost savings I would cite LAFCO as a responsible agency so we may use this document to meet our CEQA obligations for such an extension or

2.3 annexation if desired by the City. Also in the Project Description (1.3) section I would add language about the provision of infrastructure to provide public water to the area. Also under Table

2.4 1.5-1 I would add the Lake Local Agency Formation Commission and the approval would be extension of domestic water service into the territory or annexation to the City of Lakeport.

Thank you for allowing me to comment.
John

On Jun 28, 2011, at 9:27 AM, Kevin Ingram wrote:

> <SMainSt_IS-EA_public review May2011.pdf>

RECD JUN - 9 2011

3

South Main Street and Soda Bay Road Widening and Bike Lanes Project

COMMENT CARD

Public Open House

Board of Supervisors' Chambers, Lake County Courthouse

5:00 p.m. – 7:00 p.m., May 23, 2011

MAILING

NAME: Betsy Cawx

ADDRESS: PO Box 348

CITY, ZIP: Upper Lake, Ca 95485

AFFECTED PROPERTY

APN (Assessor Parcel Number): _____

ADDRESS (if different): _____

Please provide any comments regarding widening of South Main Street and Soda Bay Road:

See attached

Do you want to be included on the mailing list to receive information on future public meetings regarding this project? X YES ___NO

email

Your comments are important.

Please drop this form into the comment box at this meeting or mail it to the address shown on the back of this form.

Please respond by June 10, 2011.

epi-center@sbcglobal.net **THANK YOU**

REC'D JUN - 9 2011 3

June 9, 2011

To: Kenneth Brown, Principal Civil Engineer, Lake County Department of Public Works
Dc: John Benoit, Executive Director, Lake County LAFCO
Suzanne Lyons, Mayor, City of Lakeport
Mark Brannigan, Director, City of Lakeport Municipal Services District
From: Betsy Cawn, Lake County LAFCO Municipal Service Review Committee Member
Subject: "South Main Street and Soda Bay Road Widening and Bike Lanes Project, Initial Study with Proposed Mitigated Negative Declaration/ Environmental Assessment," May 2011.

The following comments are offered to support the implementation of the "South Main Street/Soda Bay Road" infrastructure improvement project (title referenced above).

1. The ability to reference information by page number is inhibited by lack of standard pagination (refer to the Chicago Manual of Style, 16th Edition, www.chicagomanualofstyle.org).

3.1 For example, the "front page" (commonly called the "title page") should not be marked as "page one" but technically it is, so that the back side of the "front page" should be marked -- using the italic Roman numeral style -- as "page two" (i.e., "*ii*").

In this document the first numbered page ("*i*") is actually the ninth page in the document. This would not matter to anyone who is not commenting on the contents of the previous pages (all of which are called "frontis matter"), but there is a phrase on what would be the fifth page ("*v*") that I want to refer to but that page has no number. The citation in my later comments will thus refer the reader back to this item for comprehension of the pagination problem.

2. Pages 97-99, Chapter 5, Distribution List:

3.2 a. The Lake County Local Agency Formation Commission (Lake LAFCO) is not included. Please add the agency to your standard distribution lists for future reviews (see the Lake County web portal home page for the link to the address).

3.3 b. The two tribal governments affected by this project should be notified in accordance with SB 18, in "government to government" communications. Sarah Ryan, Director of the Environmental Protection Office of the Big Valley Rancheria, can explain this better than I can. The Scotts Valley Band of Pomo Indians is not included in this distribution list, and when listed both tribes should be referred to as such (again, I'll leave it to Sarah to define the appropriate category, but I would think that it should fall somewhere around the "Federal" and "State" agencies section).

3.4 c. Under "Regional Agencies," I do not think that "Lake County Air Quality Management District" is a regional entity. If I am wrong, please let me know.

d. Similarly, I do not think that "MediaCom" is a "regional" entity. If I am wrong, please let me know.

e. Under County and City Agencies, the fire protection entity is not the "City of

6/9/11 - 1 of 6

3.4 cont.

Lakeport Fire District," but rather should be listed as the "Lakeport Fire Protection District."

f. Referring to item "b." above, the Big Valley Rancheria listing does not belong in a section titled "Organizations and Individuals," but in the appropriately designated section (to be determined, please refer to Sarah Ryan on this).

3.5

g. Was the Scotts Valley Band of Pomo Indians consulted (reference Section 3.4, Cultural Resources Interested Parties Consultation, Page 92)?

3. Page 92, Section 3.2.2, Utility Provider Coordination:

3.6

The first sentence states that "PG&E (Electric), AT&T (Telephone), and MediaCom (Cable TV) are planned to participate as joint trench agents . . ." and the last sentence states "Preliminary joint trench plans have been developed by the County in anticipation of coordinating the underground district construction."

The City of Lakeport Municipal Services District should be included in that planning activity, to ensure that the trench only has to be excavated one time, and incorporates needed water service infrastructure. (Refer to email from Mark Brannigan, Director, City of Lakeport Municipal Services District, June 9, 2011, attached.)

4. Many pages refer to the mandate for the project, including the phrase "improve utility infrastructure" found on what would be the fifth page of the frontis matter (i.e., "*v*") if the pagination were standard (refer to item 1 in these comments, above).

Other references to this mandate include Page 1, Chapter 1, Proposed Project, first paragraph, first sentence; Page 7, Subsection 1.2.2, Need, second paragraph, second sentence; and Page 12, Section 1.3, Project Description, first paragraph, first sentence. Clearly the need to "improve utility infrastructure" is well understood by all planning agencies involved in this project.

3.7

However, the list of project objectives shown in Subsection 1.2.1, Purpose (Page 7) and Subsection 1.2.2, Need (Pages 7-11) does not include provision for water system services. (Also see item 3 in these comments, above.) It is my understanding that the lumber yard (formerly Piedmont, now Mendo-Mill) does not have adequate fire protection flows and the many commercial enterprises in the project area are using individual wells for water supplies.

In Subsection 1.4.1.2, Utilities, the third paragraph includes the statement that "In cooperation with the City of Lakeport, the project would include the extension of the existing South Main Street water main." The second sentence states ". . . it is anticipated that the planned water main extension would be included as part of the road improvements project." Please ensure that the City of Lakeport Municipal Services District is appropriately included in all planning for utility infrastructure improvements.

5. Page 26, Subsection 2.1.4, third paragraph (Utilities):

3.8

a. First sentence: Please revise; a suggested sentence follows.

"The largest source of water in the project area is Clear Lake, which provides water supplies to the City of Lakeport Municipal Services District adjacent to the project area. Developments in the project area are served by groundwater

6/9/11-246

3.8 cont.

wells under the jurisdiction of the Lake County Environmental Health Department." [The Yolo County Flood Control & Water Conservation District reference is unnecessary and serves to obscure the real jurisdictional conflicts of water supply and delivery.]

3.9

b. Second sentence: "Groundwater is the second largest source of water in the project area." Please define which groundwater basin serves the project area at this time. If the project area is served by the Big Valley Groundwater Basin, that basin is already overdrafted; if served by the Scotts Valley Groundwater Basin, that basin is already obligated to the City of Lakeport to supplement the City's littoral water rights and contracts with Yolo County Flood Control & Water Conservation District. Please clarify what the true groundwater impacts are, and determine what source supply should be used.

3.10

c. Third sentence: "Wastewater in the project area is managed by the Northwest Regional Wastewater System within the County Sanitation District, which has a treatment plant near the City of Lakeport."

The Northwest Regional Wastewater Treatment Plant is north of the City of Lakeport, and does not receive sewage from the south end of the City of Lakeport. The City of Lakeport Municipal Services District does remove sewage from the LACOSAN service area called "Lands End" in an interagency agreement and takes that sewage to its Municipal wastewater treatment facility near the project area.

Please consult with Mark Brannigan, Director, City of Lakeport Municipal Services District, for the accurate statement about what sewage goes where.

3.11

d. Fourth sentence: Technically correct ("The County is also in the process of developing a 50-mile pipeline . . ."), but I believe that this pipeline is in place, so that part of the project is done. However, the pipeline does not "encircle" the lake yet (communities along the southern shoreline from Jago Bay to the Soda Bay area are not sewered).

3.12

What is "dual recycling" and where are the "wetlands" referred to in this sentence?

3.13

e. Fifth sentence: The County of Lake no longer operates the "Lakeport Transfer Station in Lakeport (910 Bevins Street).

3.14

f. Sixth sentence: Change "SBC Pacific Bell" to "AT&T."

6. Page 27, third paragraph (Fire Protection and Emergency Services), first sentence:

3.15

There are five fire protection districts, not six, in Lake County (one for each supervisorial district).

3.16

7. Page 35, Figure 2.2.1-1, Location of Floodplain and Box Culverts: Where is Box Culvert #1? Are these two numbered items misnumbered, or is there a #1 that lies in another part of the project area but was left out? Not clear.

3.17

8. Page 39, fifth paragraph, first sentence: The Lake County Clean Water Program is administered by a joint powers of authority agreement between the County of Lake and the Cities of Lakeport and Clearlake. The Lake County Clean Water

3.17 cont. Program Advisory Council oversees County-wide compliance with the State of California's small municipal services NPDES permit requirements.

3.18 9. Page 40, second paragraph (Affected Environment, Water Quality): The project site is located within the US EPA Hydrologic Unit 18020116 (Upper Cache Creek Watershed), which lies within a hydrologic area whose name I do not know (could be "Cache Creek Hydrologic Area"). Best person to consult for this detailed description would be Tom Smythe, Water Resources Engineer, Lake County Department of Water Resources/Department of Public Works.

3.19 10. Page 40, fourth paragraph: There are two groundwater basins referred to here, which should be consistently called groundwater basins, i.e., "Big Valley Groundwater Basin" and "Scotts Valley Groundwater Basin." There is no such thing as "Scotts Creek Valley Basin" in any of the literature I have reviewed. Again, Tom Smythe is the expert on this nomenclature.

3.20 11. Pages 40 and 41, fifth paragraph (starting on Page 40): The discussion of impacts to the groundwater basin used by the properties in the project area does not describe what groundwater basin they are drawing from. The City of Lakeport draws from the Scotts Valley Groundwater Basin to supplement the allotment of littoral water rights granted by the Yolo County Flood Control & Water Conservation District contract; refer to Mark Brannigan for comment on actual water source impacts and Tom Smythe for correct nomenclature.

3.21 12. Page 70, first, second, and third paragraphs (Avoidance, Minimization, and/or Mitigation Measures):

CEQA §15074 requires a Mitigation Monitoring and Reporting Plan; in regard to the restoration of vegetation following completion of the project (third bullet item, second paragraph), a follow up reporting plan measure should include monitoring of successful revegetation with "native local herbaceous plant species" as noted.

Thank you for the opportunity to comment on this excellent project proposal.

Respectfully submitted,

Betsy Cawn
Essential Public Information Center
Upper Lake, CA
707-275-9376
epi-center@sbcglobal.net

3

From: "Mark Brannigan" <mbrannigan@cityoflakeport.com>
Subject: **RE: So. Main St. Proposal**
Date: June 9, 2011 8:42:04 AM PDT
To: "'Betsy Cawn'" <epi-center@sbcglobal.net>
Cc: "'John Benoit'" <johnbenoit@surewest.net>, "Margaret Silveira" <msilveira@cityoflakeport.com>, "Scott Harter" <sharter@cityoflakeport.com>, "Richard Knoll" <rknoll@cityoflakeport.com>

Betsy,

Good morning to you too.

The South Main/Soda Bay Road area does have sewer service available (out to Lands End) because of a district that was formed in 1991 to fund a bond, but water service to the are in question is not available until annexation takes place, and services are installed. Sewer mains and services are in place and the County does have a corridor within their road/undergrounding project for a water main (I have not seen the Caltrans document that you showed me on Tuesday evening). The City is moving forward with its plan to annex the South Main/Soda Bay area that is within its Sphere of Influence, and has an application that is being submitted to USDA RD for Grant/Long term low interest financing for which a project to loop a water main from the new college to our water main that currently dead-ends at South Mains City limits. The City is perusing funding for installing water services prior to the road and undergrounding project in hopes that the services can be installed at the same time that construction is taking place for the project.

The City does provide sewer service to the area because of the District that was formed to do just that, but water services can't currently be provided to the area until annexation is complete due to an agreement that the city has with Yolo County Flood. There is a Pre-Annexation agreement between the City and County. If you have questions about the agreement you should contact Richard.

Regards,

Mark Brannigan

-----Original Message-----
From: Betsy Cawn [mailto:epi-center@sbcglobal.net]
Sent: Thursday, June 09, 2011 7:18 AM
To: Mark Brannigan
Cc: John Benoit
Subject: So. Main St. Proposal

Good Morning, Mark.

I am just preparing my written comments on the "South Main Street and Soda Bay Road Widening and Bike Lanes Project" document, and I would like to verify what I think you said on Tuesday evening, to be completely sure I got it right. (Because I am not sure that I'll be able to "fine-tooth-comb" this document in the limited time remaining for public comments.)

The key issue is that the project does NOT include placement of sewer and water mains that would allow provision of water and sewage removal from developed parcels within the project that are currently using individual septic systems and wells. Is this statement correct?

If I remember correctly, you stated that the City cannot provide water and sewer services because the area is outside the city limits, and there is no

3

agreement in place to allow annexation of the area into the city limits.

I want to make sure that these statements are accurate, to include them in my written comments for submittal this afternoon. I'll send you a copy of my comments for your records.

Thanks for your assistance, as always,

Betsy Cawn
Essential Public Information Center
Upper Lake, CA
275-9376
epi-center@sbcglobal.net

P.S. -- John: LAFCO was not included in the distribution for this proposal; I will be commenting on that as well, and will send you my comments for your review.

6/9/11-6d6 3

4

"Yup... think I'll brand 'bout a hundred doggies today!"

05/30/11

Dear Mr. Brown,

It's not fair of the County to spend all that money on that project when all we need on Aztec Rd., which is only one block long, are the potholes filled in and a coat of chip seal put down... I've been here 10 years and they've only swept the gravel off once, because a boy wiped out on his bike and knocked his teeth out! His father complained.

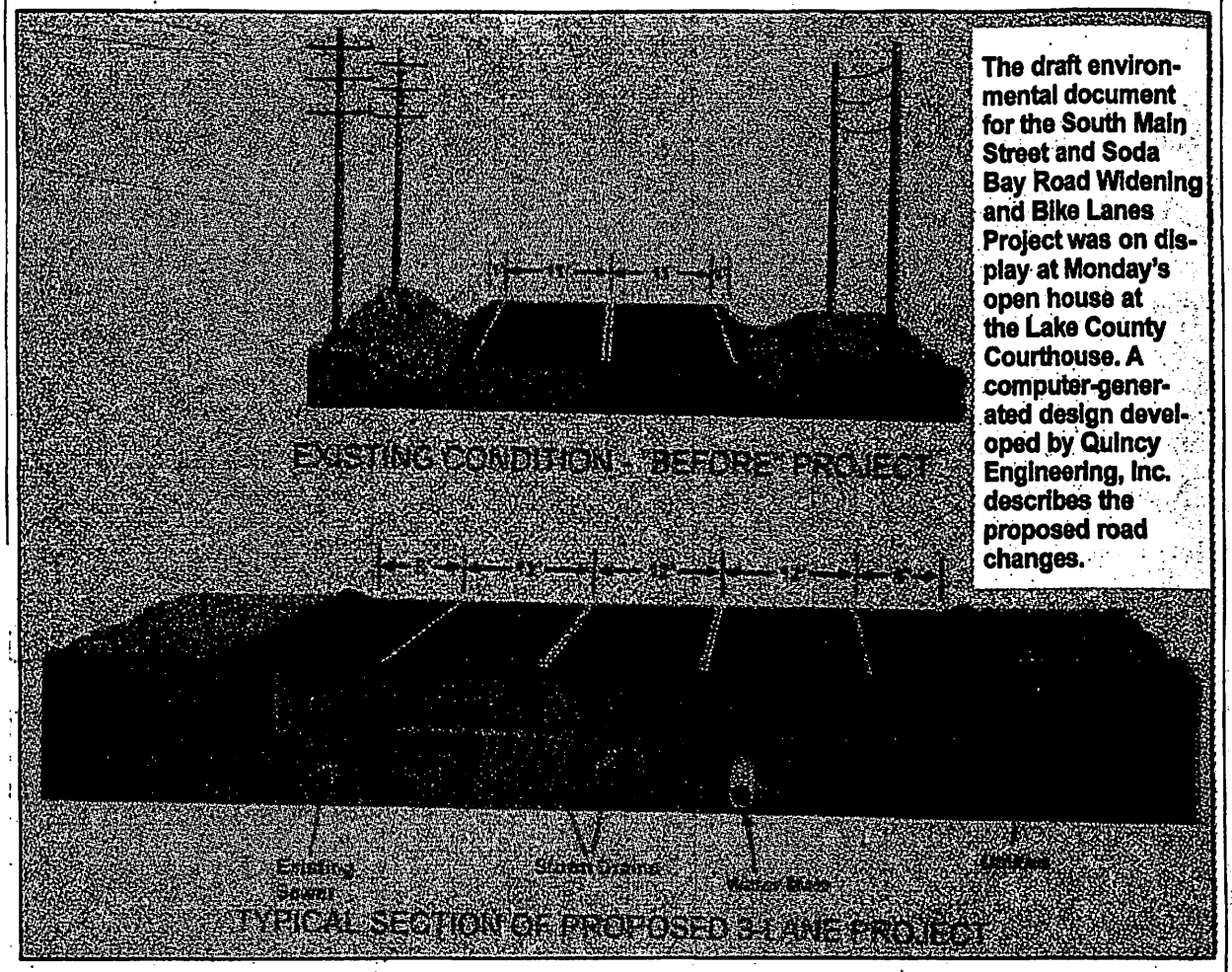
I tripped and fell one time coming down from the mailbokes. I stubbed my toe on a rib sticking up and tore myself up! :-/ I called the County over and over and kept getting the run around. Finally a man told me "the county can't afford it" and "you homeowners will have to get together and pay for it...

Again not fair, as all those living on the hill above us come down Bass Rd. and use Aztec to go to Montezuma and out on Soda Bay Rd. :-/

Respectfully submitted,

Patricia C. Larson
4105 Aztec Drive
Kelseyville, CA 95451

Draft for road project viewed, discussed



The draft environmental document for the South Main Street and Soda Bay Road Widening and Bike Lanes Project was on display at Monday's open house at the Lake County Courthouse. A computer-generated design developed by Quincy Engineering, Inc. describes the proposed road changes.

Jeremy Walsh
Staff reporter

LAKEPORT — Approximately a dozen local residents viewed the draft environmental document for the South Main Street and Soda Bay Road Widening and Bike Lanes Project at an open house Monday evening at the Lake County Courthouse.

Representatives of the county, Caltrans, design firm Quincy Engineering, Inc. and environmental consultants LSA Associates, Inc. were available to answer questions.

The project seeks to improve vehicle, bicycle and pedestrian safety in Lakeport on nearly 1.3 miles of roadway, which includes one-half miles of South Main Street immediately north of Highway 175 and three-fourths miles of Soda Bay Road south of Highway 175.

Proposed improvements include widening traffic lanes, adding a center turn-lane and bike lanes, creating better surface drainage and undergrounding utilities.

Public input is a required part of the environmental review process and comments will be included in the final document. Interested parties can view the draft on the Lake County website or on the third floor of the Lake County Courthouse.

The deadline to submit written comments is June 10. Comments can be mailed, faxed, e-mailed or dropped off to the Public Works Department at the courthouse. Comments should be directed to Public Works principal civil engineer Ken Brown.

RECD MAY 23 2011 5

South Main Street and Soda Bay Road Widening and Bike Lanes Project

COMMENT CARD

Public Open House

Board of Supervisors' Chambers, Lake County Courthouse

5:00 p.m. – 7:00 p.m., May 23, 2011

MAILING

NAME: Bob OLSEN for NESLO GROUP

ADDRESS: PO Box 9

CITY, ZIP: Kelseyville 95451

AFFECTED PROPERTY

APN (Assessor Parcel Number): 005-053-22

ADDRESS (if different): 2617 S. MAIN

Please provide any comments regarding widening of South Main Street and Soda Bay Road:

Great project. very helpful explanations.

5.1 Flood zone & drainage issues seem to be a focus – which is important to our building which is in significant flood zone and also receives considerable runoff from our substantial roof and adjacent property Rotten Robbie.

5.2 Widening & utilities will take out our fencing and nearly touch the corner of our building. We look forward to working out suitable replacement fencing with Project Management.

We look forward to these improvements, AS SOON AS possible please.

Do you want to be included on the mailing list to receive information on future public meetings regarding this project? ✓YES ___NO

Your comments are important.
Please drop this form into the comment box at this meeting or mail it to the address shown on the back of this form.

Please respond by June 10, 2011.

THANK YOU

REC'D MAY 23 2011

6

South Main Street and Soda Bay Road Widening and Bike Lanes Project

COMMENT CARD

Public Open House

Board of Supervisors' Chambers, Lake County Courthouse

5:00 p.m. – 7:00 p.m., May 23, 2011

NAME: PAUL RACINE

MAILING ADDRESS: 2515 CLIPPER LN

CITY, ZIP: LAKEPORT CA 95453

AFFECTED PROPERTY APN (Assessor Parcel Number): _____

ADDRESS (if different): 59 + 100 SBR

6.1 Please provide any comments regarding widening of South Main Street and Soda Bay Road:

ACCESS FOR TRUCKS WITH 53' TRAILERS SHOULD BE CONSIDERED ON THESE TWO (AND OTHER) PARCELS.

Do you want to be included on the mailing list to receive information on future public meetings regarding this project? X YES ___NO

Your comments are important.
Please drop this form into the comment box at this meeting or mail it to the address shown on the back of this form.

Please respond by June 10, 2011.

THANK YOU

7

Subject: FW: So. Main Street/Soda Bay Rd. Widening

7.1

From: James Scott
Sent: Monday, June 13, 2011 8:58 PM
To: Ken Brown
Subject: RE: So. Main Street/Soda Bay Rd. Widening

Ken,
Good report overall. I truly hope water services are extened the entire length because many of the parcels witha business need the connection!!! Just ask the number of folks with a well that the State DPH is overseeing.

Respectfully,
James

From: Ken Brown
Sent: Thursday, June 09, 2011 5:26 PM
To: James Scott
Subject: FW: So. Main Street/Soda Bay Rd. Widening

James,

Here's your copy. It was nice chatting with you. If you have any questions, I'll be here tomorrow morning and back again on Monday. Thank you.

Ken Brown
County of Lake
Public Works Department
707.263.2341
ken_b@co.lake.ca.us

-----Original Message-----
From: Ken Brown
Sent: Thursday, June 09, 2011 8:57 AM
To: Ray Ruminski
Cc: Mike Sanchez; 'Kristin Nurmela'; Kevin Ingram
Subject: So. Main Street/Soda Bay Rd. Widening

Ray,

7

It just came to my attention that you should have been included in the Distribution List of the attached Environmental Document. Our public review period ends tomorrow, June 10. If you have anything upon which you would like to comment please send your comment(s) to me as soon as possible. If you have any questions, I am available at your convenience. Thank you.

Ken Brown

County of Lake

Public Works Department

707.263.2341

ken_b@co.lake.ca.us

Responses to Written Public Comments Received

State Clearinghouse

1.1 This letter acknowledges that the County has complied with the State Clearinghouse review requirements for draft environmental documents. This letter does not relate directly to the adequacy of the Draft IS/EA or the analysis contained therein. Therefore, no further response is necessary.

Lake County Local Agency Formation Commission

2.1 The proposed project does not include the provision of water services or City annexation of the project area. The roadway and utility undergrounding project includes the installation of the water main infrastructure to prevent unnecessary roadway trenching in the event that the City decides to annex and extend water service into the project area in the future. Annexation and/or extension of City services into the project area is not proposed at this time. At such time that the area is evaluated for annexation, coordination with LAFCO will commence to obtain all necessary approvals and an environmental review will be conducted to address the provision of services to the area and the impact that will have. Section 1.4.1.2, Utilities, on page 13 has been updated to clarify the details of the water main.

> In cooperation with the City of Lakeport, the project would include the extension of the existing South Main Street water main. Assuming that appropriate funding is secured, it is anticipated that the planned water main extension would be included as part of the road improvements project. The 12-inch-diameter water main would be constructed in a trench under the center of the road and pass beneath the box culverts. <u>The proposed project includes the installation of this infrastructure to accommodate future water service. The installation of the water main as part of the proposed roadway and utility undergrounding project would ensure that the road would not need to be disrupted another time to install additional infrastructure. No water service connections would be established as part of the proposed project.</u>

2.2 As described in Response 2.1, a CEQA document will be prepared in the event that the project area is considered for annexation and City services are proposed to be extended. LAFCO will be designated as a responsible agency.

2.3 The project description (Section 1.4.1.2, Utilities) has been amended as described in Response 2.1 to distinguish between the extension of the water main infrastructure as part of the proposed roadway and utility undergrounding project and the potential provision of water service in the future.

2.4 See Response 2.2 above.

Betsy Cawn

3.1 Comment noted. Pagination has been added to the sheets at the beginning of the document.

3.2 A copy of the public review Draft IS/EA was provided to the Lake County LAFCO on June 28, 2011 and comments were received as reflected in responses to Comment Letter 2, above. The Lake County LAFCO will be included in future distribution lists as appropriate.

3.3 SB 18 applies in those instances when a city or county government proposes to adopt or amend a general or specific plan. The project will not adopt or otherwise amend a general or specific plan and, therefore, the requirements of SB 18 are not applicable in this case. Extensive consultation, however, has been undertaken for the current project and has been done pursuant to the requirements of Section 106 of the National Historic Preservation Act, as amended (36 CFR Part 800). Both Big Valley Rancheria (designated the Most Likely Descendent for the area by the Native American Heritage Commission) and Scotts Valley Band of Pomo Indians have been consulted for this project. Consultation with Big Valley Rancheria is ongoing to ensure that potential impacts from the project to sites of tribal importance are mitigated. In a letter dated June 8, 2008, the Scotts Valley Band of Pomo Indians requested that a monitor be used during project construction. It is the intent of the County and Caltrans to ensure Native American involvement during project ground-disturbing activities, including the use of a monitor.

See Response 3.4 regarding the organization of the distribution list.

3.4 Comments noted. Suggestions regarding the organization of the distribution list will be taken into consideration for future environmental documents. The Big Valley Rancheria is not a state or federal agency and would be correctly identified as an “Interested Party.” Future distribution lists will correctly reference the Lakeport Fire Protection District.

3.5 The Scotts Valley Band of Pomo Indians (as well as the Elem Pomo Tribe and Big Valley Rancheria) was consulted as part of the project. On June 8, 2008, Senior Planner, Mr. Shannon “Bear” Ford of Scotts Valley Band of Pomo responded in a letter to the consultation request that the tribe “has no information” on cultural resources in the APE but requested the use of a monitor, “to protect any artifacts or site in the project area that have not been discovered.” The County will ensure that a Native American and archaeological monitor(s) will be on site during project ground-disturbing activities, as appropriate.

3.6 Representatives of the City of Lakeport Public Works and Utility Departments have attended Project Development Team meetings for the South Main Street and Soda Bay Road Widening and Bike Lanes Project. Ongoing coordination has occurred between County and City staff to ensure the correct placement of water infrastructure for future use within the project area. The installation of a water pipeline has no bearing on the underground district or any relation to a utilities joint trench. Section 1.4.1.2, Utilities, on page 13 has been updated to clarify the details of the water main.

> In cooperation with the City of Lakeport, the project would include the extension of the existing South Main Street water main. Assuming that appropriate funding is secured, it is anticipated that the planned water main extension would be included as part of the road improvements project. The 12-inch-diameter water main would be constructed in a trench under the center of the road and pass beneath the box culverts. The proposed project includes the installation of this infrastructure to accommodate future water service. The installation of the water main as part of the proposed roadway and utility undergrounding project would ensure that the road would not need to be disrupted another time to install additional infrastructure. No water service connections would be established as part of the proposed project.

3.7 The proposed project does not include the provision of water services. As clarified in the revised text referenced in Response 3.6 above, the project includes the installation of the water main infrastructure to prevent unnecessary roadway trenching in the event that the City decides to annex and extend water service into the project area in the future. At such time that the area is evaluated for annexation, an environmental review will be conducted by the City to address the provision of services to the area and the impact that will have.

3.8 The referenced text on page 26 pertaining to water supply was clarified as reflected below.

> The largest source of water in the project area is Clear Lake, which provides water supplies for City of Lakeport municipal use just north of the project site. Groundwater is the second largest source of water in the project area. Water is drawn from the Scotts Valley Groundwater Basin, which overlaps the northern project area along South Main Street, and the Big Valley Groundwater Basin, which overlaps the central and southern project area along South Main Street and Soda Bay Road. The Lake County Environmental Health Department regulates groundwater wells.

3.9 The extent of the groundwater basins that serve the project area is clarified in Response 3.8 above. As described in Response 3.7, the proposed roadway widening and utility undergrounding project does not include the provision of water services. Therefore, no groundwater withdrawals would occur as part of the proposed project. Section 2.2.2, Water Quality and Storm Water Runoff, describes the potential short-term and long-term groundwater impacts of the project (*Environmental Consequences*, page 42). Additionally, based on water level data collected by the California Department of Water Resources and the County, the Big Valley Groundwater Basin is not overdrafted; however, it does experience water shortages during drought periods but recovers fully during normal runoff years. See also Response 3.20 below.

3.10 The referenced sentence has been clarified on page 26 as follows:

> Sewer service is provided by the County Sanitation District, and wastewater is discharged into the City of Lakeport collection system and treated at the City's wastewater treatment facility.

3.11 Comment noted. The 50-mile effluent pipeline is incomplete, and effluent from the City of Lakeport is not connected to the pipeline system at this time. The referenced sentence has been removed from the text.

3.12 See Response 3.11 above. The referenced sentence has been removed.

3.13 Comment noted. The referenced text on page 26 has been amended as follows:

> Solid waste is managed by the Waste Management Division of the Lake County Public Services Department, which operates the Eastlake Sanitary Landfill in Clearlake and administers refuse collection contracts with two franchise haulers for the unincorporated areas of the County: Lake County Waste Solutions transfer station and recycling center, located at 230 Soda Bay Road, and Southlake Refuse and Recycling, located within the Eastlake Sanitary Landfill.

3.14 The reference to "SBC Pacific Bell" has been changed to "AT&T."

3.15 The referenced text is correct as currently stated. There are six fire protection districts in the County: Kelseyville, Lake County, Lake Pillsbury, Lakeport, Northshore, and South Lake County. No edits have been made to the existing text.

3.16 The following text has been added to the Affected Environment section on page 33 to explain that Figure 2.2.1-1 only identifies the culverts that are located in the 100-year floodplain. Although not indicated in this figure, Culvert #1 is located north of Culvert #2 on South Main Street as shown by the blue "dot."

> Figure 2.2.1-1 shows the location of the box culverts that are located in 100-year floodplain areas. All other culverts are located outside of the floodplain.

3.17 The referenced text has been modified on page 39 as follows:

> The Lake County Clean Water Program is administered by a joint powers of authority agreement between the County of Lake, City of Lakeport, and City of Clearlake. Program implementation is achieved through the Lake County Clean Water Program Advisory Council, which makes recommendations for overall program management and coordination, strategic planning, review, budget considerations, and conflict resolution with respect to the NPDES permit on behalf of all parties of the program.

3.18 The referenced text pertaining to the watershed designations is correct as currently stated and is in accordance with the watershed delineation system used by the EPA and others. No edits have been made to the existing text.

3.19 References to the Big Valley Groundwater Basin and Scotts Valley Groundwater Basin have been clarified in the document as suggested. The incorrect reference to the "Scotts Creek Valley Basin" has been edited to read "Scotts Valley Groundwater Basin."

3.20 See Responses 3.8 and 3.9 above. The description of the affected environment section for groundwater has been amended to clarify that the discussion of groundwater elevation trends applies to both groundwater basins.

> <u>According to the California Department of Water Resources' Bulletin 118 series, which summarizes groundwater data for the Big Valley and the Scotts Valley groundwater basins, there is</u> an average seasonal fluctuation ranging from 5 to 15 feet for normal and dry years <u>in these basins</u>.

3.21 The avoidance and minimization measures included in this document will be incorporated into the plans and specifications for the project, and will thereby be implemented as part of the project. A mitigation monitoring and reporting program will be prepared to address the implementation of mitigation measures needed to reduce impacts to less than significant under CEQA. As noted on page 70 under *Avoidance, Minimization, and/or Mitigation Measures*, the County will need to obtain permits from the USACE, RWQCB, and CDFG prior to ground disturbance in jurisdictional waters. As part of the permit application process, an approved revegetation plan will be required prior to agency issuance of permits. Maintenance and monitoring documentation after revegetation is required by the agencies as a standard condition of the permits.

Patricia Larson

4.1 The commenter cited a concern regarding an alleged diversion of County funds from the maintenance of Aztec Drive. Funding for the South Main Street and Soda Bay Road Widening and Bike Lanes Project was obtained from federal and state sources. Use of these funds for maintenance or rehabilitation of a local roadway such as Aztec Drive is not permitted.

Bob Olsen

5.1 It is anticipated that the improvements to the cross culvert south of the commenter's property will facilitate the passage of storm water runoff and help to prevent overtopping of the drainage channel on the adjacent parcel. Final drainage design will examine the hardscape improvements such as buildings and pavement that exist in the area. It will be considered that hardscape has an impact on flood intensity.

5.2 The project improvements will come close to the commenter's building and may require the relocation of the right-of-way fence. Relocation and/or replacement of this fence is within the scope of the project and will be incorporated into the final design. The alignment of the roadway was shifted to the east to avoid any physical impact on the building structure.

Paul Racine

6.1 The entry and egress conditions of all parcels in the project corridor will be examined during the final design process and special needs will be considered. As noted by the commenter, access for semi-trucks and trailers will be a concern for many of the businesses. An 8-foot wide paved shoulder will be included with the pavement widening. This extra width adjoining the traveled way would facilitate turning movements on and off of the roadway.

James Scott

7.1 Representatives of the City of Lakeport Public Works and Utility Departments have attended Project Development Team meetings. The City has committed to the design and installation of water pipelines, appurtenances and services within the project area. Design should be completed within the next year in time for implementation either before or during construction of the South Main Street and Soda Bay Road Widening and Bike Lanes Project. However, although the infrastructure will be extended as described, the proposed project does not include the provision of water services. See also Response 3.7 above. Section 1.4.1.2, Utilities, on page 13 has been updated to clarify the details of the water main.

> In cooperation with the City of Lakeport, the project would include the extension of the existing South Main Street water main. Assuming that appropriate funding is secured, it is anticipated that the planned water main extension would be included as part of the road improvements project. The 12-inch-diameter water main would be constructed in a trench under the center of the road and pass beneath the box culverts. The proposed project includes the installation of this infrastructure to accommodate future water service. The installation of the water main as part of the proposed roadway and utility undergrounding project would ensure that the road would not need to be disrupted another time to install additional infrastructure. No water service connections would be established as part of the proposed project.

Chapter 4 List of Preparers

Caltrans Oversight Staff

Brandon Larsen, Senior Environmental Planner, Caltrans Office of Local Assistance, District 1
Timothy Keefe, Associate Environmental Planner, North Region Environmental Services, Branch E-1

Lake County Department of Public Works

Ken Brown, P.E., Project Manager, Lake County Department of Public Works

Quincy Engineering, Inc.

Mike Sanchez, P.E., Project Manager

Preparers

LSA Associates, Inc. – Environmental Consulting Lead

Environmental Planning
Bill Mayer, Principal-in-Charge
Laura Lafler, Principal, Planning
Kristin Granback, Environmental Project Manager
Shanna Guiler, AICP, Senior Planner
Megan Heileman, Assistant Environmental Planner

Biological Resources
Jeff Bray, Principal, Biologist
Mike Trueblood, Biologist

Cultural Resources
Christian Gerike, Principal, Cultural Resources
Andrew Pulcheon, Associate, Cultural Resources
Neal Kaptain, Senior Cultural Resources Manager
E. Timothy Jones, Senior Cultural Resources Manager
Jennifer Redmond, Cultural Resources Analyst
Michael Hibma, Cultural Resources Analyst/Architectural Historian

Noise
Tung-chen Chung, Principal, Air Quality/Noise
Phil Ault, Noise Specialist

Climate Change
Tung-chen Chung, Principal, Air Quality/Noise
Phil Ault, Climate Change Specialist

Pacific Hydrologic Incorporated
Norman Braithwaite, PE, President

TJKM Transportation Consultants – Traffic Analysis

Gary Kruger, Lead for Travel Forecast Analysis and Traffic Operations Analysis

Taber Consultants – Hazardous Materials

Martin Wills, Lead for Phase II Site Investigation

Chapter 5 Distribution List

Persons and Agencies Sent a Notice of the Availability of the Environmental Document

ELECTED FEDERAL OFFICIALS

Members of the U.S. Senate:

The Honorable Barbara Boxer
United States Senator
1700 Montgomery Street, Suite 240
San Francisco, CA 94111

The Honorable Dianne Feinstein
United States Senator
One Post Street, Suite 2450
San Francisco, CA 94104

Members of the House:

The Honorable Mike Thompson
United States Representative
1st Congressional District of California
1040 Main Street, Suite 101
Napa, CA 94559

ELECTED STATE OFFICIALS

Members of the State Senate:

The Honorable Noreen Evans
Member of the Senate
2nd District
50 D Street Suite 120-A
Santa Rosa, CA 95404

Members of the State Assembly:

The Honorable Wesley Chesbro
Member of the Assembly
1st District
50 D Street Suite 450
Santa Rosa, CA 95404

ELECTED LOCAL OFFICIALS

County Board of Supervisors:

The Honorable Jim Comstock
Board of Supervisors, Lake County
District 1
Board of Supervisors
255 North Forbes Street
Lakeport, CA 95453

The Honorable Jeff Smith
Board of Supervisors, Lake County
District 2
Board of Supervisors
255 North Forbes Street
Lakeport, CA 95453

The Honorable Denise Rushing
Board of Supervisors, Lake County
District 3
Board of Supervisors
255 North Forbes Street
Lakeport, CA 95453

The Honorable Anthony Farrington
Board of Supervisors, Lake County
District 4
Board of Supervisors
255 North Forbes Street
Lakeport, CA 95453

The Honorable Rob Brown
Board of Supervisors, Lake County
District 5
Board of Supervisors
255 North Forbes Street
Lakeport, CA 95453

Mayors:

The Honorable Stacey Mattina
Mayor
City of Lakeport
225 Park Street
Lakeport, CA

FEDERAL AGENCIES

Natural Resources Conservation Service
889 Lakeport Blvd.
Lakeport, CA 95453

U.S. Fish and Wildlife Service
Sacramento Field Office
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

U.S. Army Corps of Engineers
Sacramento District
Attention: CESPK-PD
1325 J Street
Sacramento, CA 95814
(916) 557-7490

STATE AGENCIES

California Transportation Commission
1120 N Street, Room 2221 (MS-52)
P.O. Box 942873
Sacramento, CA 94273-0001

State Clearinghouse, Executive Officer
(15 copies)
Office of Planning and Research
1400 Tenth Street, Room 156
P.O. Box 3044
Sacramento, CA 95812-3044

REGIONAL AGENCIES

Lake County Air Quality Management District
Douglas Gearhart
Air Pollution Control Officer
885 Lakeport Blvd.
Lakeport, CA 95453

Lake County/City Area Planning Council
C/O Dow Associates
367 North State Street, Suite 206
Ukiah, CA 95482

AT&T
Attention: Anita Gabrielson
1818 F Street, Room 202
Eureka, CA 95501

PG&E
Attention: Howard Pickersgill,
Environmental Field Specialist
210 Corona Road
Petaluma, CA 95954

Mediacom
Attention: Phil Rooney
13221 East Highway 20
Clearlake Oaks, CA 95423

COUNTY AND CITY AGENCIES

Lake County Planning Commission
Michael van der Boon, District 1 Planning Commissioner
CDD/Planning Commission
255 North Forbes Street
Lakeport, CA 95453

Lake County Planning Commission
Bob Malley, District 2 Planning Commissioner
CDD/Planning Commission
255 North Forbes Street
Lakeport, CA 95453

Lake County Planning Commission
Olga Martin Steele, District 3 Planning Commissioner
CDD/Planning Commission
255 North Forbes Street
Lakeport, CA 95453

Lake County Planning Commission
Cliff Swetnam, District 4 Planning Commissioner
CDD/Planning Commission
255 North Forbes Street
Lakeport, CA 95453

Lake County Planning Commission
Gil Schoux, District 5 Planning Commissioner
CDD/Planning Commission
255 North Forbes Street
Lakeport, CA 95453

City of Lakeport
Community Development Department
Richard Knoll
Community Development / Redevelopment Director
225 Park Street
Lakeport, CA 95453

City of Lakeport
Fire District
445 North Main Street
Lakeport, CA 95453

City of Lakeport
Police Department
916 North Forbes Street
Lakeport, CA 95453

Lake County Sheriff's Office
1220 Martin Street
Lakeport, CA 95453

City of Lakeport Unified School District
2508 Howard Street
Lakeport, CA 95453

Lake Transit Authority
9240 Highway 53
Lower Lake, CA 95422

ADA Paratransit Services
P.O. Box 698
Lower Lake, CA 95457

Lake County Chamber of Commerce
Attn: Melissa Fulton, CEO
875 Lakeport Boulevard
P.O. Box 295
Lakeport, CA 95453

Lake County Local Agency Formation Commission (LAFCO)
John Benoit, Executive Officer
P.O. Box 2694
Granite Bay, CA 95746

Lake County Health Services Dept.
Environmental Health Services DivisionAttn: Ray Ruminski
922 Bevins Court
Lakeport, CA 95453

ORGANIZATIONS AND INDIVIDUALS

In addition to the organizations or individuals listed below, the Notice of Availability was mailed to all businesses and residences located adjacent to the project area.

Mr. David C. Mordick
4250 Williams Road
San Jose, CA 95129

Mr. Bill McVey, CEO
Airport Auto Brokers, Ltd.
2440 South Main Street
Lakeport, CA 95453

Mr. John M. Hagan
P.O. Box 1682
Lakeport, CA 95453

Ms. Dorothy Shafer
32 Soda Bay Road
Lakeport, CA 95453

Sarah Ryan, Director
Environmental Protection Office
Big Valley Rancheria
2726 Mission Rancheria Road
Lakeport, CA 95453

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Appendix A California Environmental Quality Act Checklist

Supporting documentation of all CEQA checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment. Documentation of "No Impact" determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or compensation measures under the appropriate topic headings in Chapter 2.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. AGRICULTURAL 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 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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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??	☐	☐	☒	☐
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
VI. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
g) 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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Appendix B Title VI Policy Statement

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DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. Box 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY 711

Flex your power!
Be energy efficient!

July 20, 2010

TITLE VI
POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Charles Wahnon, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353 or toll free 1-866-810-6346 (voice), TTY 711, fax (916) 324-1869, or via email: charles_wahnon@dot.ca.gov.

CINDY McKIM
Director

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Appendix C Minimization and/or Mitigation Strategy

Avoidance and Minimization Measures:

Land Use/Right of Way Acquisition

Implementation of the following minimization measures, which have been incorporated into the project, would reduce or eliminate the impacts due to property acquisitions for the proposed project:

- All affected business owners and residents would be fully compensated for the ROW acquisitions in accordance with applicable federal and state ROW acquisition laws. The compensation would be at a fair market value, except for properties that have public ROW "dedications" as part of a use permit or development permit. Properties with "dedications" would be compensated at fair market value for any additional ROW acquisition that is not part of previous dedications. Fair market value corresponds to the value the property would have if sold privately on the open market. Compensation would also be provided for any loss of market value to the remainder of the property.
- Compensation would be based on an evaluation performed by a licensed state appraiser. California law provides that the property owner would receive a copy of the appraisal or of the valuation upon which the offer of compensation is based.

Community Facilities and Services/Utilities/Emergency Services

Design, construction, and inspection of any required utility work would be completed in accordance with the County's standards and procedures. The County would coordinate with any affected service provider to ensure minimum disruption of utility services or operations and that all utility work is performed in accordance with appropriate requirements and criteria.

A detailed TMP would be included as part of the Contractor's specification package to manage temporary construction delays due to one-lane traffic controls. The TMP would address all traffic-related aspects of construction including, but not limited to, the following: traffic handling during each stage of construction, emergency service provider access, pedestrian safety/access, and bicycle safety/access. A component of the TMP would involve public dissemination of construction-related information through notices to the neighborhoods, press releases, and/or the use of changeable message signs. No roadway or driveway access to residences or businesses is expected to be blocked during the construction of the project.

Hydrology and Floodplain

Project construction would occur during low-flow times to avoid flood-related impacts in the floodplain.

Water Quality and Stormwater Runoff

Lake County would comply with the provisions of the Statewide NPDES General Construction Activity Permit (NPDES Permit No. CAS000002) and any subsequent

permit or individual permit if required by the RWQCB as it relates to construction activities for the project, including dewatering. This compliance would include a NOI to the SWRCB prior to the start of construction. Upon completion of work and the stabilization of all disturbed areas, a Notice of Termination would be submitted to the Central Valley RWQCB in Sacramento.

Temporary construction BMPs would be implemented to help control erosion and minimize suspended sediment in storm water runoff. In addition, implementation of the avoidance and minimization measures included in Section 2.3.1, Wetlands and Other Waters, would minimize water quality impacts.

Geology/Soils/Seismicity/Topography

The proposed project would comply with all county, state and federal regulations relating to seismic and geologic hazards. The proposed project would be designed and constructed in accordance with appropriate safety regulations such as Occupational Safety and Health Administration (OSHA) requirements for trenching, shoring, and safety equipment usage. The project plans, specifications and special provisions will include project specific requirements for imported soil, embankment fill, structural section materials, and trench backfill.

Paleontology

Ground-disturbance in the Late Pleistocene alluvium below the Holocene deposits may encounter paleontological resources. If paleontological remains are discovered during the course of the project, all work would halt and the resources would be avoided by project activities. A qualified paleontologist (e.g., a professional with a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California or related topical or geographic areas)[18] would be contacted to assess the situation. Upon completion of an assessment, the paleontologist would prepare a report documenting the methods and results, and provide recommendations for the curation of paleontological materials.

Project personnel would not be permitted to collect or move any paleontological materials. Fill soils used for construction purposes would not contain paleontological materials.

Hazardous Waste/Materials

Employee lead exposure would be assessed and special health and safety procedures would be in effect for the workers working near lead contaminated areas, consistent with the provisions of CCR Title 8, §1532.1. California Code of Regulations Title 8, §1532.1 applies to all construction work where an employee may be exposed to lead and it: 1)

18 Neither the federal or California state governments have mandated educational and/or experience requirements for paleontologists. The following suggested guidelines, as stated on the Caltrans Standard Environmental Reference website <http://www.dot.ca.gov/ser/vol1/sec3/physical/Ch08Paleo/chap08paleo.htm#preparer>, are derived from a combination of professional society, federal, state, and local agency guidance: A qualified paleontologist is an individual with: a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California or related topical or geographic areas; and at least one year full time professional experience, or equivalent specialized training in paleontological research, administration, or management.

establishes an 8 hour permissible exposure limit of 50 µg/m3; 2) requires an exposure assessment in all workplaces where an employee may be exposed to lead; 3) sets worker protection measures to minimize lead exposure. Safety and health procedures for the protection of workers exposed to lead contaminated soils or lead containing paint would be included in the project specific health and safety plan (HSP, described below).

Yellow thermoplastic and/or paint striping would be removed as an independent action and the waste generated during striping removal would be sampled, if necessary, handled, and disposed of as hazardous waste.

The contractor(s) would prepare a project-specific HSP for work involving handling soil and groundwater impacted by lead, petroleum hydrocarbons, volatile organic compounds (VOCs), and metals. The HSP would comply with the Safety and Health Program requirements outlined in Title 8 CCR (T8 CCR) §5192(b) Hazardous Waste Operations and Emergency Response, and worker training requirements of T8 CCR §5194 Hazard Communication. The HSP would include protocols for environmental and personnel monitoring requirements, personal protective equipment, and other health and safety practices and procedures required to minimize worker exposures during work involving soil and groundwater impacted by lead, petroleum hydrocarbons, VOCs, and metals.

If suspected impacted soil or groundwater is encountered, work would cease and the construction engineer or supervisor would contact the County Environmental Health Department to define the extent and magnitude of the impacted area. If determined that the impacted soil or groundwater poses a risk to human health or the environment, the contractor(s), in conjunction with the project engineer and the County Environmental Health representative, would develop a plan to remove and/or mitigate the impacted soil or groundwater to minimize impacts.

The County will ensure that a Serpentine Dust Control Plan is submitted to the Lake County Air Quality Management District (LCAQMD) at least 30 days before any ground disturbance commences. The dust control plan form, available through the LCAQMD, will document the measures that the contractor will implement to control dust during work in regulated serpentine areas.

Noise

To meet the City and County noise standards, the following measures would be implemented as part of the project:

- The construction contractor would ensure that all general construction related activities are restricted to the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and 8:00 a.m. to 7:00 p.m. on weekends.
- All internal combustion engines would be equipped with the manufacturer-recommended muffler. Internal combustion engines would not be operated on the construction site without the appropriate muffler.
- The project contractor would place all stationary construction equipment so that emitted noise is directed away from noise sensitive receptors nearest the active project site.

- To the extent feasible, the construction contractor would locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise sensitive receptors nearest the active project site during all project construction.

Wetlands

Prior to initiating grading, Lake County would obtain any necessary permits from the USACE, RWQCB, and/or CDFG. Lake County would comply with any additional measures or conditions placed on the project by these agencies. In addition, the following measures would be implemented to minimize impacts to waters of the U.S./State.

- In-water work would be limited to the period between June 15 and October 15.
- Temporary and permanent erosion control measures such as weed-free straw and mulch would be applied.
- Following completion of work, any temporary impact areas in the drainages would be restored to preconstruction contours and seeded with native local herbaceous plant species.

The following measures would be implemented to compensate for impacts to waters of the U.S./State.

- Waters of the U.S./State permanently impacted during construction, totaling 0.162 acre (0.140 acre of waters of the U.S. and 0.022 acre of waters of the State), would be mitigated using one of the following methods, or using a combination of the methods:
  - Preservation, creation, and/or restoration of the impacted resources at a minimum ratio of 2:1 (except if replacement resources are created and functional prior to the impacts occurring, then a 1:1 ratio is sufficient). A 1:1 mitigation ratio would require 0.162 acre of mitigation area; a 2:1 mitigation ratio would require 0.324 acre of mitigation area.
  - Through use of in-lieu fee mitigation in accordance with the USACE, Sacramento District's Interim Guidelines for In-Lieu Fee Mitigation. The interim guidelines include an estimated fee schedule based on a 2:1 mitigation ratio.
  - Purchase of preservation credits at the Siegler Valley Mitigation Bank once it is approved. Siegler Valley Mitigation Bank will only offer preservation credits; consequently, the mitigation ratio would be a minimum of 2:1 and would require 0.324 acre of mitigation area.
  - Purchase of creation or preservation credits at another agency-approved mitigation bank at a minimum 1:1 mitigation ratio (for creation credits). A 1:1 mitigation ratio would require 0.162 acre of mitigation area.

Plant Species

Prior to the start of construction, ESA exclusionary fencing would be installed along the limits of work within and/or adjacent to the serpentine grassland community in the project area to minimize encroachment during construction. ESA exclusionary fencing would

consist of orange construction fencing (or equivalent) and would be maintained in good condition until construction is complete. No work or equipment would occur within fenced areas.

Prior to construction, where utility line corridors extend into serpentine grassland, all topsoil would be salvaged and stored in a weed-free location until the utility line work is complete. The topsoil would consist of the upper 12 inches (approximately) of soil and associated vegetation. Following completion of the utility line work, graded areas would be ripped or otherwise decompacted, if necessary. The salvaged topsoil would then be spread evenly on the graded areas and lightly compacted (e.g., “track-walked”). A qualified biologist or botanist familiar with native plant communities and with revegetation experience in construction areas would monitor topsoil salvage and replacement within the serpentine grassland community. Any trees or shrubs removed would be replaced with locally native site-appropriate species.

Animal Species

The following avoidance and minimization measures have been incorporated into the project:

Cooper’s Hawk

If possible, all suitable nest trees that will be impacted by project construction shall be removed during the non-nesting season (between September 1 and March 1). If this is not possible and project construction is to begin during the nesting season (March 2 – August 31), all suitable nest trees within the limits of work shall be surveyed by a qualified wildlife biologist proficient in the identification of bird species and nesting behavior prior to initiating construction-related activities. Surveys shall be conducted no more than 14 days prior to the start of work. If an active nest is discovered, an appropriate buffer would be established around the nest tree and delineated using orange construction fence or equivalent. The size of the buffer would be determined based on the location of the tree relative to existing development, activity, etc. and the sensitivity of the nest to disturbance, as determined by a qualified biologist proficient in raptor and nesting behavior identification. The buffer would be maintained in place until the end of the breeding season or until the young have fledged, as determined by a qualified biologist.

If no nesting is discovered, construction can begin as planned. Construction beginning during the non-nesting season and continuing into the nesting season would not be subject to these measures.

Tricolored Blackbird

Disturbance of the grassland and row crop communities resulting from construction activities would be minimized to the extent feasible.

Northwestern Pond Turtle

Prior to the start of in-water work, the work area would be surveyed by a wildlife biologist with experience in the identification of pond turtles. If turtles are observed in the project area, they would be relocated outside of the work area. Following completion of work, any temporary impact areas in the drainages would be restored to preconstruction contours. To avoid entrapment of pond turtles and other reptiles and mammals, any fiber

blankets installed for erosion control after construction would be free of any plastic mesh netting and contain only natural plant fiber mesh.

Clear Lake Hitch

In-water work would not begin until June 15. To the maximum extent feasible, construction of the new culverts and the extension of the existing culverts would be constructed with the minimum gradient necessary and so the bottom sill of the culvert is at or below the existing channel grade. Following completion of work, any temporary impact areas in the drainages would be restored to preconstruction contours.

Migratory Birds

- If possible, all trees or other significant vegetation that will be impacted by project construction would be removed during the non-nesting season (between September 1 and March 1). If this is not possible and project construction is to begin during the nesting season (March 2 through August 31), all suitable nesting habitat within the limits of work would be surveyed by a qualified wildlife biologist proficient in the identification of bird species and nesting behavior prior to initiating construction-related activities. Surveys would be conducted no more than 14 days prior to the start of work. If an active nest is discovered, an appropriate buffer would be established around the nest tree and delineated using orange construction fence or equivalent. The size of the buffer would be determined based on the location of the tree relative to existing development, activity, etc. and the sensitivity of the nest to disturbance, as determined by a qualified biologist. The buffer would be maintained in place until the end of the breeding season or until the young have fledged, as determined by a qualified biologist.

  If no nesting is discovered, construction can begin as planned. Construction beginning during the non-nesting season and continuing into the nesting season would not be subject to these measures.

- Prior to the start of the nesting swallow season (March 2 to August 31), a qualified company would be hired to install exclusion netting (or equivalent material) on the underside of the existing culverts to prevent swallows or other birds from nesting. Exclusion structures would be left in place and maintained until the existing culvert is removed, or August 31, whichever is earlier; or
- During the nesting season (or as long as swallows attempt to nest on the culverts, as determined by a qualified biologist) all swallow nests would be removed from the underside of the culvert on a daily basis to ensure that no nesting occurs. Nests would be removed using a high powered waters hose, a long pole, or equivalent method.

Invasive Species

To avoid the introduction of invasive species into the project area during project construction, contract specifications would include, at a minimum, the following measures:

- All earthmoving equipment to be used during project construction would be thoroughly cleaned before arriving on the project site.

- All seeding equipment (i.e., hydroseed trucks) would be thoroughly rinsed at least three times prior to arriving at the project site and beginning seeding work.
- To avoid spreading any non-native invasive species already existing on-site, to off-site areas, all equipment would be thoroughly cleaned before leaving the site.

Mitigation Measures:

Cultural Resources

The following mitigation measures would reduce the cultural resources impacts of the project:

Pursuant to 36 CFR §800.6(c), a Memorandum of Agreement (MOA) would be developed to address treatments for historic properties in the APE and the evaluation and potential mitigation for both known archaeological sites and potential late discoveries located within the project's ADI. The MOA would be developed between the County, City, Big Valley Rancheria Band of Pomo Indians, Caltrans District 1, and the SHPO to implement protection and mitigation procedures for any as-yet-unidentified cultural resources eligible for the National Register that may be in the ADI.

An HPTP would be developed in conjunction with the MOA for implementing specific archaeological site evaluation and treatment measures for cultural resources. The HPTP would be developed and implemented through consultation among the SHPO, County, City, Caltrans, and the Big Valley Rancheria. At a minimum, the HPTP would contain:

- An archaeological construction monitoring plan;
- A treatment plan for late discoveries encountered during the construction of the project;
- Methods and procedures for mitigation of project adverse effects to archaeological sites;
- An ESA action plan that would be implemented during the construction of the project to protect adjacent archaeological sites from the effects of the construction of this project; and
- Curation procedures for all archaeological materials that would be recovered during the mitigation phase of this project.

Procedures for the treatment of unanticipated human remains would be in accordance with California Health and Safety Code §7050.5, PRC §§ 5097.94 and 5097.98, and done in consultation with the Big Valley Rancheria Band of Pomo Indians.

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Appendix D List of Technical Studies

A number of technical studies were used to analyze the impacts of the proposed project and the no-build alternative, and are summarized in the IS/EA. These studies include:

- Archaeological Evaluation Report, LSA Associates, Inc., October 2010
- Archaeological Survey Report, LSA Associates, Inc., December 2009
- Community Impact Assessment, LSA Associates, Inc., February 2010
- Drainage Technical Memorandum, Quincy Engineering, Inc., May 2011
- Extended Phase I Report, LSA Associates, Inc., April 2010
- Farmland Conversion Assessment, LSA Associates, Inc., October 2008
- Historical Resources Evaluation Report, LSA Associates, Inc., January 2009
- Initial Site Assessment, LSA Associates, Inc., September 2009
- Natural Environment Study, LSA Associates, Inc., August 2010
- Noise Study Report, LSA Associates, Inc., December 2008
- Paleontological Study Memorandum, LSA Associates, Inc., November 2009
- Phase II Site Investigation Report, Taber Consultants, January 2010
- Storm Water Data Report, Quincy Engineering, Inc., February 2008
- Summary Floodplain Encroachment Report, Quincy Engineering, Inc., September 2010
- Lake County, South Main Street/Soda Bay Road, Todd Drain Culvert Hydraulic Analysis, Pacific Hydrologic Incorporated, September 2010
- Traffic Operational Analysis, TJKM Transportation Consultants, January 2008
- Wetland Delineation Report, LSA Associates, Inc., March 2010

Technical studies are available for viewing, along with copies of the IS/EA at:

Lake County Public Works Department
255 North Forbes St
Lakeport, CA 95453
http://www.co.lake.ca.us

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Appendix E Farmland Conversion Impact Rating (Form AD-1006)

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U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 9/29/08
Name Of Project South Main Street and Soda Bay Road Widening	Federal Agency Involved U.S. Department of Transportation
Proposed Land Use Road and utility right-of-way/easement	County And State Lake County Public Works, Caltrans District I
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☑	No ☐	Acres Irrigated 0	Average Farm Size
Major Crop(s) Walnuts, Grapes, Pears	Farmable Land In Govt. Jurisdiction Acres: 0 %		Amount Of Farmland As Defined in FPPA Acres: 1.1 %	
Name Of Land Evaluation System Used Storie	Name Of Local Site Assessment System none		Date Land Evaluation Returned By NRCS 9/30/08	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.3			
B. Total Acres To Be Converted Indirectly	0.8			
C. Total Acres In Site	1.1	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	1.1			
B. Total Acres Statewide And Local Important Farmland	0.0			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.0			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	0.0			
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	81	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	14			
2. Perimeter In Nonurban Use	10	0			
3. Percent Of Site Being Farmed	20	0			
4. Protection Provided By State And Local Government	20	20			
5. Distance From Urban Builtup Area	0	0			
6. Distance To Urban Support Services	0	0			
7. Size Of Present Farm Unit Compared To Average	10	0			
8. Creation Of Nonfarmable Farmland	25	0			
9. Availability Of Farm Support Services	5	5			
10. On-Farm Investments	20	10			
11. Effects Of Conversion On Farm Support Services	25	0			
12. Compatibility With Existing Agricultural Use	10	1			
TOTAL SITE ASSESSMENT POINTS	160	50	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	81	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	50	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	131	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ■

Reason For Selection:

(See Instructions on reverse side)

Form AD-1006 (10-83)

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Appendix F Road Construction Emissions Model Data Entry Worksheets

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Road Construction Emissions Model

Version 6.3.2

Data Entry Worksheet

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a
yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells C10 through C25.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Input Type		
Project Name	S Main & Soda Bay	
Construction Start Year	2013	Enter a Year between 2005 and 2025 (inclusive)
Project Type	2	1 New Road Construction 2 Road Widening 3 Bridge/Overpass Construction
Project Construction Time	24.0	months
Predominant Soil/Site Type: Enter 1, 2, or 3	1	1. Sand Gravel 2. Weathered Rock-Earth 3. Blasted Rock
Project Length	1.25	miles
Total Project Area	8.0	acres
Maximum Area Disturbed/Day	0.1	acres
Water Trucks Used?	2	1. Yes No
Soil Imported	0.0	yd^3/day
Soil Exported	0.0	yd^3/day
Average Truck Capacity	20.0	yd^3 (assume 20 if unknown)

2.

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Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> S Main & Soda Bay Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	4.2	17.2	30.1	3.4	1.4	2.0	1.7	1.2	0.4	3,397.8
Grading/Excavation	4.6	20.3	31.7	3.6	1.6	2.0	1.9	1.5	0.4	3,809.0
Drainage/Utilities/Sub-Grade	3.9	16.3	25.8	3.4	1.4	2.0	1.7	1.3	0.4	3,168.6
Paving	2.7	11.1	13.7	1.2	1.2	-	1.1	1.1	-	1,553.3
Maximum (pounds/day)	4.6	20.3	31.7	3.6	1.6	2.0	1.9	1.5	0.4	3,809.0
Total (tons/construction project)	1.1	4.5	7.1	0.8	0.4	0.4	0.4	0.4	0.1	846.2

Notes:

Project Start Year ->	2013
Project Length (months) ->	24
Total Project Area (acres) ->	8
Maximum Area Disturbed/Day (acres) ->	0
Total Soil Imported/Exported (yd^3/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> S Main & Soda Bay Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	1.9	7.8	13.7	1.5	0.6	0.9	0.8	0.6	0.2	1,544.5
Grading/Excavation	2.1	9.2	14.4	1.7	0.7	0.9	0.9	0.7	0.2	1,731.4
Drainage/Utilities/Sub-Grade	1.8	7.4	11.7	1.6	0.6	0.9	0.8	0.6	0.2	1,440.3
Paving	1.2	5.0	6.2	0.5	0.5	-	0.5	0.5	-	706.0
Maximum (kilograms/day)	2.1	9.2	14.4	1.7	0.7	0.9	0.9	0.7	0.2	1,731.4
Total (megagrams/construction project)	1.0	4.1	6.4	0.8	0.4	0.4	0.4	0.3	0.1	767.5

Notes:

Project Start Year ->	2013
Project Length (months) ->	24
Total Project Area (hectares) ->	3
Maximum Area Disturbed/Day (hectares) ->	0
Total Soil Imported/Exported (meters ^{3}/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Appendix G USFWS Species List

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U.S. Fish & Wildlife Service

Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 121017095448

Database Last Updated: September 18, 2011

No quad species lists requested.

County Lists

Lake County

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardi
vernal pool tadpole shrimp (E)

Syncaris pacifica
California freshwater shrimp (E)

Fish

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus (=Salmo) clarki henshawi
Lahontan cutthroat trout (T)

Oncorhynchus kisutch
coho salmon - central CA coast (E) (NMFS)
coho salmon, So OR/No CA (T) (NMFS)
Critical habitat, coho salmon - central CA coast (X) (NMFS)

Oncorhynchus mykiss
Central California Coastal steelhead (T) (NMFS)
Central Valley steelhead (T) (NMFS)

Critical habitat, Central California coastal steelhead (X) (NMFS)
Critical habitat, Northern California steelhead (X) (NMFS)
Northern California steelhead (T) (NMFS)

Oncorhynchus tshawytscha
California coastal chinook salmon (T) (NMFS)
Central Valley spring-run chinook salmon (T) (NMFS)
Critical habitat, California coastal chinook salmon (X) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Rana draytonii
California red-legged frog (T)

Reptiles

Thamnophis gigas
giant garter snake (T)

Birds

Strix occidentalis caurina
Critical habitat, northern spotted owl (X)
northern spotted owl (T)

Plants

Eryngium constancei
Loch Lomond coyote-thistle (=button-celery) (E)

Lasthenia burkei
Burke's goldfields (E)

Limnanthes vinculans
Sebastopol meadowfoam (E)

Navarretia leucocephala ssp. pauciflora
few-flowered navarretia (E)

Navarretia leucocephala ssp. plieantha
many-flowered navarretia (E)

Orcuttia tenuis
Critical habitat, slender Orcutt grass (X)
slender Orcutt grass (T)

Parvisedum leiocarpum
Lake County stonecrop (E)

Sidalcea keckii

Keck's checker-mallow (=checkerbloom) (E)

Sidalcea oregana ssp. valida

Kenwood Marsh checkermallow (=checkerbloom) (E)

Candidate Species

Mammals

Martes pennanti

fisher (C)

Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist

and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be January 15, 2013.