

# **FIGURE 3-13** Near-Term (Year 2014) Opening Day AM Peak Hour Traffic

Project Site



Study Intersections



Study Segments



Traffic Signal

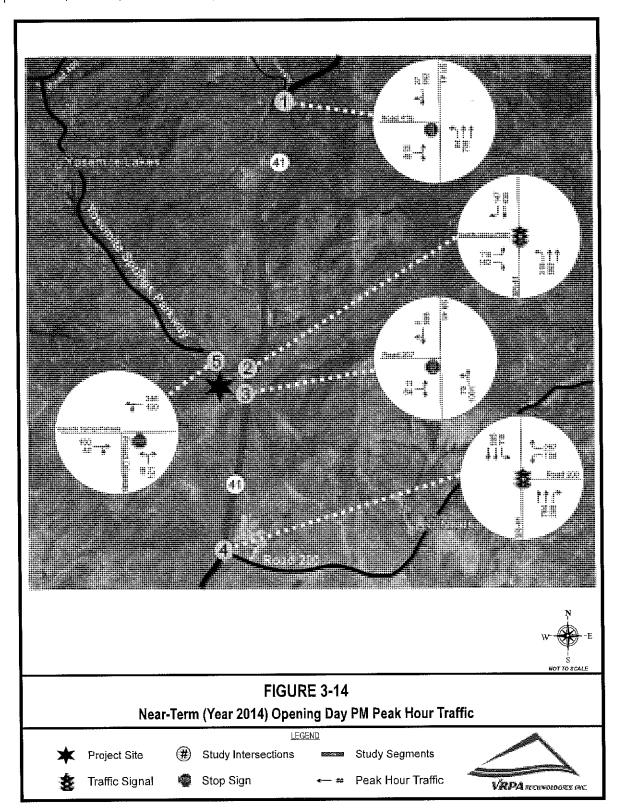


Stop Sign

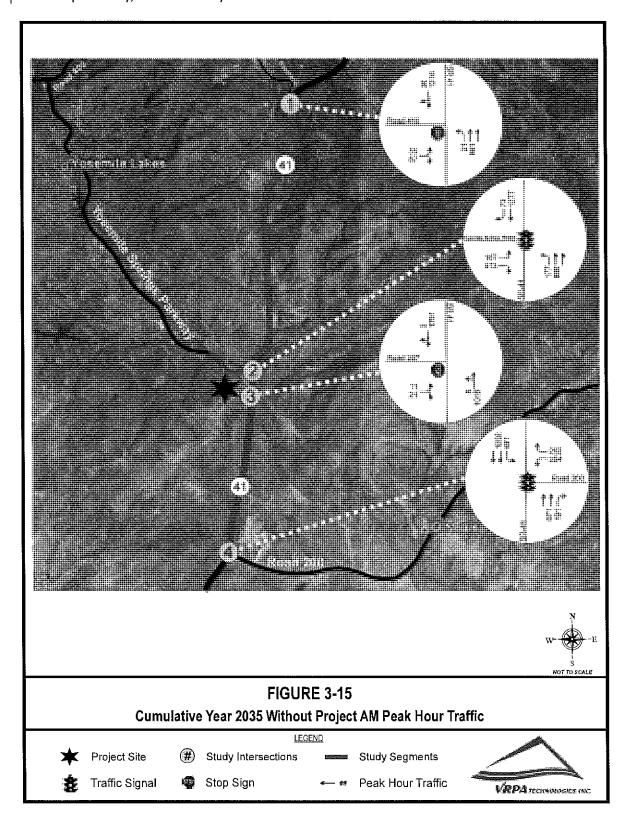


Peak Hour Traffic

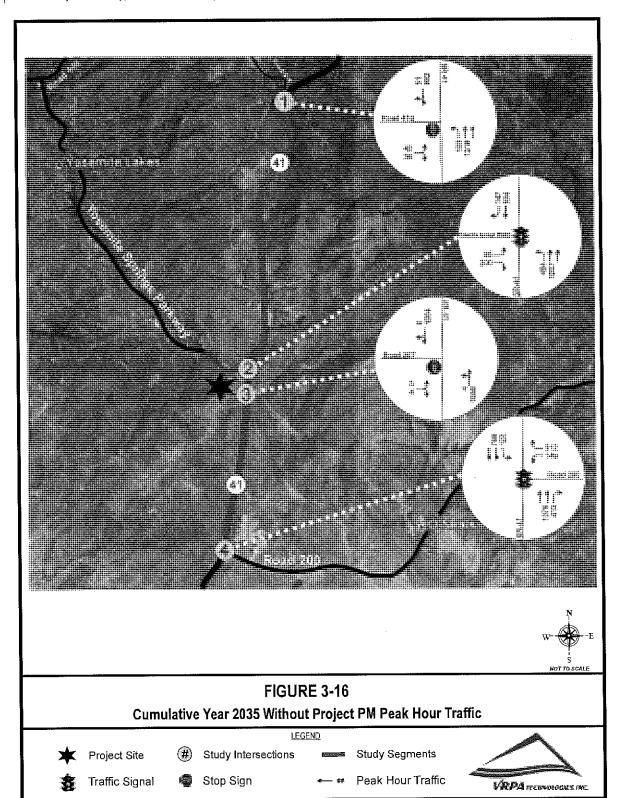




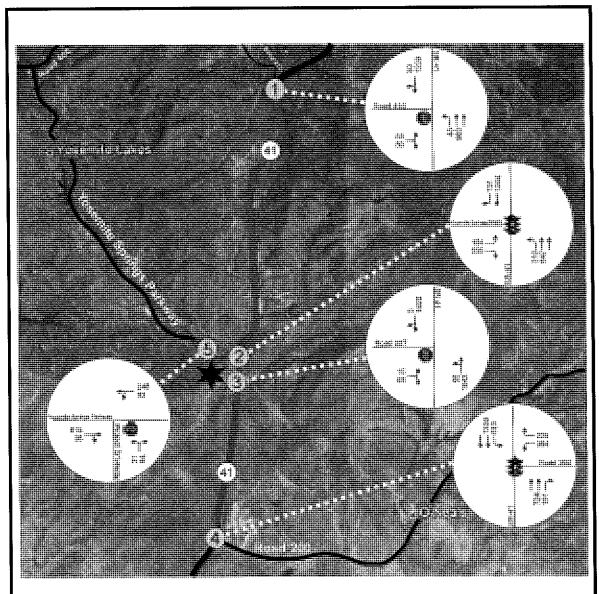














# **FIGURE 3-17** Cumulative Year 2035 With Project AM Peak Hour Traffic

Project Site

Study Intersections

Study Segments

VRPA recusorações (ne.

Traffic Signal

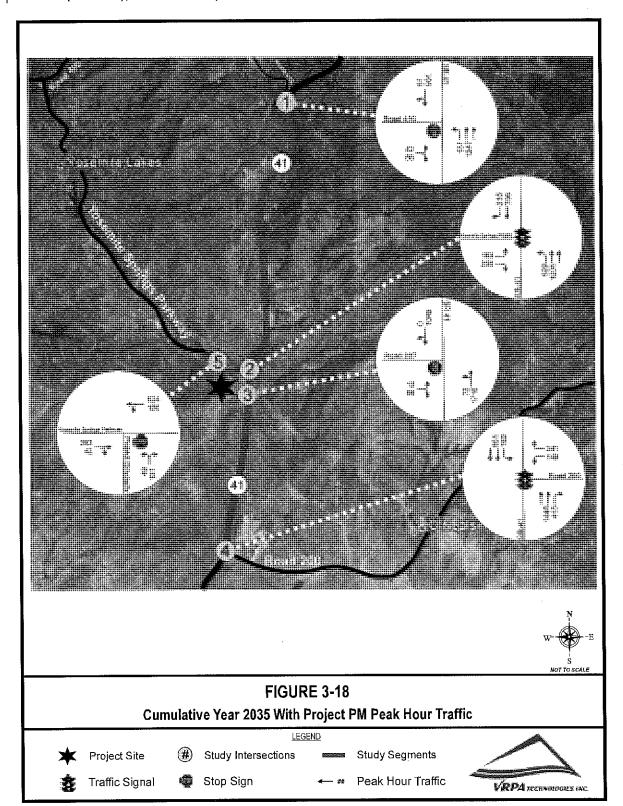


Stop Sign



Peak Hour Traffic







# 3.9 Impacts

#### INTERSECTION LOS

Table 3-2 shows that three intersections are expected to fall short of desirable operating conditions for future year scenarios. Signal warrant worksheets are provided in Appendix H of this report. Potential mitigation measures are discussed in Chapter 4 of this report.

#### **SEGMENT LOS**

Table 3-3 shows the results of the roadway segment LOS analysis. As shown, all of the study segments are expected to fall short of desirable operating conditions in the future year scenarios. Potential mitigation measures are discussed in Chapter 4 of this report.

# 3.10 Queuing Analysis

Table 3-4 provides a queue length summary for left and right turn lanes at the study intersections for the Existing Plus Project, Near-Term, Cumulative Year 2035 Without Project, and the Cumulative Year 2035 With Project scenarios. The queuing analyses for the study intersections are contained in the Synchro 7 LOS worksheets found in Appendix B.

Queuing analysis was completed using information found in the Synchro outputs. Synchro provides 50<sup>th</sup> and 95<sup>th</sup> percentile maximum queue lengths in feet. The 50<sup>th</sup> percentile maximum queue is the maximum back of queue on a typical cycle and the 95<sup>th</sup> percentile queue is the maximum back of queue with 95<sup>th</sup> percentile traffic volumes. The queues shown in Table 3-4 represent the 95<sup>th</sup> percentile queue lengths for the respective lane movements. Results of the analysis shows that traffic in the northbound left turn, eastbound left turn, and eastbound right turn at Yosemite Springs Parkway and SR 41 will exceed the existing storage capacity. The analysis also shows that traffic in the southbound left turn and the westbound left turn at Road 200 and SR 41 will exceed the existing storage capacity.



# TABLE 3-2

**Intersection Operations** 

INTERSECTION	CONTROL	PEAK HOUR	EXISTING PLUS PRO			NEAR-TERM (YEAR 2014)		/E YEAR HOUT CT IONS	CUMULATIVE YEAR 2035 WITH PROJECT CONDITIONS	
			DELAY	Los	DELAY	LOS	DELAY	LOS	DELAY	Los
1. SR-41 / Spinelli Road-Road 416	One Miss Stan Sign	AM	16,9	С	32.3	D*	389.5	F*	569.3	F**
	One-Way Stop Sign	P <b>M</b>	18.4	O	24.4	С	255.6	F*	429.7	F**
2. SR-41 / Yosemite Springs Parkway	Signalized	AM	17.8	В	25.0	С	133.0	F	137.1	F
		PM	16.8	В	18,9	В	53.9	D	65.1	E
3. SR-41 / Road 207	One-Way Stop Sign	АМ	23.7	С	54,9	F*	431.5	F*	1131.0	F*
	One-tway outprough	PM.	21.5	С	36.0	E*	133.6	F*	377.2	F*
4, SR-41 / Road 200	Cianalizad	AM	14.8	В	27.6	C	31,4	C	33.7	C
	Signalized	PM	9.7	Α	13,2	В	19.7	В	24.9	С
5. Main Access Driveway / Yosemile Springs Parkway	Signalized	AM	13.2	В	13.9	В			23.0	С
, , , , , , , , , , , , , , , , , , ,		PM	13.9	В	14.6	В			25.3	D

DELAY is measured in seconds

EOS = Level of Service / BOLD denotes LOS standard has been exceeded

# TABLE 3-3

**Segment Operations** 

SEGMENT   DESCRIPTION   DESCRIPTION   PEAK   HOUR   PEAK   HOUR   PLUS PROJECT   (YEAR 2014)   PROJECT					-											
SR-41: Spinelli Road-Road 416 to Yosernika Springs Parkway  Two-lane Undivided b Three-Lane Undivided b Two-lane Undivided b Tw	SEGNENT	DESCRIPTION	DIRECTION	PEAK HOUR					2035 WITHOUT PROJECT		2035 W PROJE	ITH CT				
SR-41: Spinell Road-Road 416 to Yosemile Springs Parkway   Two-lane Undivided to Three-Lane Undivide					VOLUME	LOS	VOLUME	Los	VOLUME	Los	VOLUME	Los				
SR-41: Spinell Road-Road 416 b Yoserrille Springs Parkway   Two-lane Undivided b Three-Lane Undivided b Two-lane Undivided			ND	AM	395	D	565	E	957	E	1,001	E				
SB AM 558 D 816 E 1,350 F 1,395 E PM 498 D 601 E 988 E 1,047 E  NB AM 413 E 593 E 1,027 F 1,057 F PM 761 E 1,012 E 1,691 F 1,730 F PM 765 E 1,053 E 1,794 F 1,823 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 492 D 598 E 1,004 F 1,045 F PM 546 D 635 E 1,022 F 1,190 F Three-Lane Undivided	· · · · · · · · · · · · · · · · · · ·	Two-lane Undivided b	NB	₽M	626	D	819	E	1,316	E	1,378	E				
NB   AM   443   E   593   E   1,027   F   1,057   F	1. SR-41; Spinelli Road-Road 416 to Yosemile Springs Parkway	Three-Lane Undivided *	en.	AM	558	D	816	E	1,350	F	1,395	E				
NB   AM   413   E   593   E   1,027   F   1,057   F     PM   761   E   1,012   E   1,691   F   1,730   F     PM   765   E   1,012   E   1,691   F   1,730   F     PM   766   E   1,063   E   1,794   F   1,823   F     PM   482   D   598   E   1,004   F   1,045   F     PM   482   D   598   E   1,004   F   1,045   F     PM   840   E   1,071   E   1,692   F   1,097   F     PM   840   E   1,071   E   1,692   F   1,790   F     PM   546   D   662   E   1,008   F   1,111   F     PM   546   D   662   E   1,008   F   1,111   F     PM   546   D   281   D   295   D   413   D     PM   546   D   281   D   295   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   229   D   250   D   341   D     PM   546   D   246   D   246   D   246   D     PM   546   D   246   D   246   D   246   D     PM   546   D   246   D			0.05	. PM	498	D	601	E	988	Е	1,047	E				
NB		(86,335-3465)(A66,355)		2008/12/2006	600000000000000000000000000000000000000	:0000000000000000000000000000000000000			SSA KER YASAR			3196966				
SR-41: Yosemile Springs Parkway: D Road 207  Two-lane Undivided  SB  AM  756  E 1,053  E 1,794  F 1,823  F MM  482  D 598  E 1,004  F 1,045  F MB  AM  455  D 635  E 1,022  F 1,097  F 1,097  F 1,097  F 1,190  F MB  AM  809  E 1,106  E 1,812  F 1,190  F 1,285  F 1,111  F 280  AM 395  D 403  D 281  D 285  D 413  D 341  D 341		Two-lane Undivided	NB					_								
SB	2. SR-41: Yosemile Springs Parkway to Road 207					***************************************					<del></del>					
NB AM 455 D 635 E 1,022 F 1,097 F  Two-lane Undivided to Three-Lane Undivided*  8B AM 809 E 1,106 E 1,812 F 1,885 F  PM 546 D 662 E 1,008 F 1,111 F  NB AM 395 D 436 D 620 D 709 E  NB AM 395 D 436 D 281 D 285 D 413 D  NB AM 395 D 229 D 250 D 341 D	• •		SB		_				· · · · · · · · · · · · · · · · · · ·		<del></del>					
NB   NB   NB   NB   NB   NB   NB   NB				PM	462	D	598	E	1,004	r Singar	1,045	r				
SR-41: Road 207 b Road 200  Two-lane Undivided to Three-Lane Undivided to SR-41  Two-Lane Undivided to Three-Lane Undivided to Three-Lane Undivided to SR-41  Two-Lane Undivided to PM			N.D.	AM	455	D	635	Е	1,022	F	1,097	F				
8B AM 899 E 1,106 E 1,812 F 1,885 F PM 546 D 662 E 1,008 F 1,111 F  EB AM 395 D 436 D 620 D 709 E PM 266 D 281 D 295 D 413 D  Two-Lane Undivided WB AM 217 D 229 D 250 D 341 D	e en u n   1007   h   1000	Two-jane Undivided to	ND :	PM	840	E	1,071	E	1,692	F	1,790	F				
PM 546 D 662 E 1,008 F 1,111 F	3, SR-41: R020 207 D R020 200	Three-Lane Undivided *	ch	AM	809	E	1,106	E	1,812	F	1,885	F				
Yosemile Springs Parkway: West of SR-41 Two-Lane Undivided WB AM 217 D 229 D 250 D 341 D WB AM 217 D 229 D 250 D 341 D			60	PM	546	D	662	Ę	1,008	F	1,111	F				
Yosemile Springs Parkway: West of SR-41 Two-Lane Undivided WB AM 217 D 229 D 250 D 341 D WB AM 217 D 229 D 250 D 341 D					0.0000000000000000000000000000000000000	968468			100 HARRISTON	G5/459989/10	997658499505	Wide Shirt				
, Yosemile Springs Parkway: West of SR-41 Two-Lane Undivided WB AM 217 D 229 D 250 D 341 D			EB					-		<del>-</del>		_				
WR AM 217 D 229 D 250 D 341 D	4. Yosemin Springs Parkway: West of SR-41	Two-lane Undivided	Two-l are Undivided	Two-lane Undivided	Two-l ane Undivided	Two-Lane Undivided					<del></del>	<del></del>	<del></del>	<del> </del>	·	
PM 425 D 466 D 635 D 744 E	III Tooding upringer annings - 2001 of City		WR							_		_				
				PM	425	D	466	D	635	D	744	E				



For signalized controlled intersections, delay results show the average for the entire intersection. For one-way stop controlled intersections, delay results show the delay for the worst movement

<sup>\*</sup> Meets Peak Hour Signal Warrants

<sup>\*</sup> Segments were conservatively analyzed assuming two-lane undivided thresholds.

# TABLE 3-4

**Queuing Analysis** 

INTERSECTION	EXISTING STORAGE	LENGTH	EXISTII PLUS P		NEAR- (YEAR		YEAR WITH	LATIVE 2035 IOUT JECT	YEAR 20	LATIVE 35 WITH JECT
	(ft)		AM Queue	PM Queue	AM Queue			PM Queue	AM Queue	PM Queue
	NB Left	550	120	210	166	275	278	578	310	623
OR 44 DV Y Outline Bullions	SB Right	175	22	35	26	36	29	58	48	84
SR 41 / Yosemite Springs Parkway	EB Left	125	66	77	106	93	106	99	147	160
	EB Right	125	35	37	119	43	516	. 60	541	66
				0.7	40	40		45	47	46
	NB Right	275	26	27	42	46	52	45		
OP 44 / P - 1 000	SB Left	500	164	56	325	101	485	158	555	190
SR 41 / Road 200	WB Left	225	59	39	180	61	401	121	436	121
	WB Right	225	5	15	0	28	56	161	62	193
SR 41 / Spinelli Road-Road 416	NB Left	400	3	8	7	9	4	16	8	23
							1.8.8.6		20 100 CO	- Introduction

Queue is measured in feet



#### 4.0 Mitigation

This chapter describes potential improvements to mitigate the impacts of Project traffic and other traffic increases that are not associated with the Project. Described below are recommended improvements at the study area intersections and roadway segments for various scenarios. In order to mitigate the Project's impacts, it is recommended that the Project Applicant contribute traffic impact fees, as determined by the County of Madera in accordance with County policy. The existing road network can be mitigated to ease many of the impacts of the Project and projected future traffic through the year 2035.

#### Recommended Improvements 4.1

Caltrans has already identified that the Project will need to construct a deceleration lane and an acceleration lane approaching and departing the intersection of SR-41 at Road 207, since Road 207 will provide access to the proposed Project site. In addition, Caltrans has also required that a northbound leftturn lane on SR-41 to Road 207 be constructed as part of the proposed Project. Further, Caltrans has determined that the proposed driveway on Yosemite Springs Parkway be located to the west end of the property line and that a back to back left turn lane or side by side left turn be provided.

#### EXISTING PLUS PROJECT CONDITIONS

For this scenario, the following improvements are recommended:

#### SR 41 at Road 207

- Widen the northbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)
- Widen the southbound approach to 1 through lane and 1 right turn lane (adding 1 right turn lane)

#### Yosemite Springs Parkway at Main Access Driveway

Widen the westbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)

#### SR 41 between Yosemite Springs Parkway and Road 207

Widen the segment from 2 travel lanes to 4 travel lanes (adding 2 travel lanes)

## **NEAR-TERM (YEAR 2014) CONDITIONS**

For this scenario, the following improvements are recommended:

#### SR 41 at Spinelli Road-Road 416

Install Traffic Signal



## SR 41 at Road 207

- Widen the northbound approach to 1 left turn lane and 2 through lanes (adding 1 left turn lane and 1 through lane)
- Widen the southbound approach to 2 through lanes and 1 right turn lane (adding 1 through lane and 1 right turn lane)

# Yosemite Springs Parkway at Main Access Driveway

Widen the westbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)

## SR 41 between Road 416 and Yosemite Springs Parkway

Widen the segment from 2 travel lanes to 4 travel lanes (adding 2 travel lanes)

# SR 41 between Yosemite Springs Parkway and Road 207

Widen the segment from 2 travel lanes to 4 travel lanes (adding 2 travel lanes)

# SR 41 between Road 207 and Road 200

Widen the segment from 2 travel lanes to 4 travel lanes (adding 2 travel lanes)

#### **CUMULATIVE YEAR 2035 WITHOUT PROJECT CONDITIONS**

For this scenario, the following improvements are recommended:

#### SR 41 at Spinelli Road-Road 416

Install Traffic Signal

#### SR 41 at Yosemite Springs Parkway

- Widen the southbound approach to 2 through lanes and 1 right turn lane (adding 1 through lane)
- Widen the northbound approach to 2 left turn lanes and 2 through lanes (adding 1 left turn lane)

#### SR 41 at Road 207

- Widen the northbound approach to 1 left turn lane and 2 through lanes (adding 1 left turn lane and 1 through lane)
- Widen the southbound approach to 2 through lanes with a shared right turn lane (adding 1 through lane)



, granding and the forest light in it is become

#### SR 41 at Road 200

Widen the westbound approach to 2 left turn lanes and 1 right turn lane (adding 1 left turn lane)

## SR 41 between Road 416 and Yosemite Springs Parkway

Widen the segment from 2 travel lanes to 4 travel lanes (adding 2 travel lanes)

#### SR 41 between Yosemite Springs Parkway and Road 207

Widen the segment from 2 travel lanes to 4 travel lanes (adding 2 travel lanes)

#### SR 41 between Road 207 and Road 200

Widen the segment from 2 travel lanes to 4 travel lanes (adding 2 travel lanes)

#### CUMULATIVE YEAR 2035 WITH PROJECT CONDITIONS

For this scenario, the following improvements are recommended in addition to the improvements for the Cumulative 2035 Without Project Condition:

#### SR 41 at Road 207

Widen the southbound approach to 2 through lanes and 1 right turn lane (adding 1 through lane and 1 right turn lane)

#### Yosemite Springs Parkway at Main Access Driveway

Widen the westbound approach to 1 left turn lane and 1 through lane (adding 1 left turn lane)

#### Yosemite Springs Parkway west of SR 41

Widen the segment from 2 travel lanes to 4 travel lanes (adding 2 travel lanes)

## POST-MITIGATION LEVEL OF SIGNIFICANCE

The level of service resulting from the potential improvements identified above is shown in Table 4-1 for study area intersections and Table 4-2 for study segments. Results of the analysis show that improvements identified above will mitigate all LOS deficiencies identified in Chapter 3 to acceptable levels of service, with the exception of the intersection of SR 41 at Road 207. Caltrans has determined that a traffic signal will not be allowed at this intersection due to the close distance to the Yosemite Springs Parkway traffic signal. The resulting Cumulative Year 2035 lane geometry is shown in Figure 4-1.

In addition to the proposed improvements identified above, Table 4-3 identifies left turn and right pocket lengths required for the Cumulative Year 2035 scenario. It should be noted that back to back left turn lanes along Yosemite Springs Parkway for the westbound left to the main access driveway and the eastbound left



to SR-41 will adequately serve the future year traffic demand. The determination of the recommended storage length was determined by the queuing analysis shown in Chapter 3 and Chapter 400 of Caltrans' Highway Design Manual.

<u> 1888 - Sandard Sandard (Sandarda Sandarda Sand</u>

TABLE 4-1

Intersection Operations With Mitigation

INTERSECTION	CONTROL	PEAK HOUR	EXISTING PLUS PRO	2013	NEAR-TI (YEAR 2	RM	CUMULATIV 2035 WIT PROJE CONDITI	HOUT CT	CUMULATIV 2035 W PROJE CONDITI	ITH CT
			DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS
1. SR-41 / Spinelli Road-Road 416	O	AM			8.4	A	16.9	В	19,7	В
	Signalized	PM			7.5	A	8.5	A	8.8	A
2. SR-41 / Yosemile Springs Parkway	C. F.	AM					29.7	С	33.2	C
	Signalized	PM					15,6	В	18.6	В
3. SR-41 / Road 207	5 14 0/ 0	AM	23,6	С	26.6	D*	145.4	F*	392,8	F*
	One-Way Stop Sign	PM	21.5	С	18.5	С	43.1	E*	57.5	F*
4. SR-41 / Road 200		AM					23.3	С	24.3	C
7, 517-7171000 200	Signalized	PM					18,2	В	20.2	G
		444	43.0	В	13.9	В			23.0	С
5. Main Access Driveway / Yosemile Springs Parkway	One-Way Stop Sign	AM PM	13.2 13.9	В	14.6	В			25.3	D

DELAY is measured in seconds

LOS = Level of Service / BOLD denotes LOS standard has been exceeded

For signalized controlled intersections, delay results show the average for the entire intersection. For one-way stop controlled intersections, delay results show the delay for the worst movement.

\* Meets Peak Hour Signal Warrants

Shaded cells signify improvements are not necessary for study scenario

TABLE 4-2

**Segment Operations With Mitigation** 

	oeginent o	JCIULIOI		,		e populario de la composición de la compo	and saves	encommunication (COM)	WEST STATE	NO CONTRACTOR OF	eller automobile		
SEGMENT	DESCRIPTION I	DESCRIPTION DIRECTION		3742:3043:3043:3043:345:44   MARCHANA   MARC	EXISTING PLUS PRO	DJECT	NEAR-TERM (YEAR 2014)		2035 WIT PROJE CONDET	HOUT CT IONS	CUMULATIVE YEAR 2035 WITH PROJECT CONDITIONS		
				VOLUME	LOS	VOLUME	Los	VOLUME	LOS	VOLUME	Los		
			AM			565	Α	957	A	1,001	A		
	_ , ,,,,,,,	NB	PM			819	A	- 1,316	В	1,378	В		
1. SR-41: Spinelli Road-Road 416 to Yosamile Springs Parkway	Four-lane Undivided	SB	AM			816	A	1,350	B	1,395	В		
		- OD :	PM		1000	601	Α	988	A	1,047	В		
and the second s			AM	413	A	593	A	1,027	В	1,057	В		
	Four-tane Undivided	NB	PM PM	781	A	1,012	A	1,691	C	1,730	c c		
2, SR-41: Yosemile Springs Parkway to Road 207			AM	756	Ā	1,053	В	1,794	c	1,823	C		
				SB	SB	PM	482	A	598	A	1,004	Ā	1,045
		SAME (2007)					\$1.52	8035050	2002504				
		NB	AM			635	Α	1,022	В	1,097	В		
3. SR-41: Road 207 b Road 200	Four-lane Undivided		PM			1,071	В	1,692	C	1,790	C		
O. D. T. T. T. Com Ed. D. T. Com M.		SB	AM			1,106	В	1,812	C	1,885	C		
			PM .		<b> </b>	662	A	1,008	A	1,111	В		
	Commentarion and the second se	Section of the sectio	AM							709	A		
		EB	PM							413	A		
Yosemile Springs Parkway: West of SR-41	Four-lane Undivided	Four-lane Undivided	AM							341	A		
		WB	PM							744	A		

LOS = Level of Service / BOLD denotes LOS standard has been exceeded

\* Segments were conservatively analyzed assuming two-lane undivided thresholds.

Shaded cells signify improvements are not necessary for study scenario



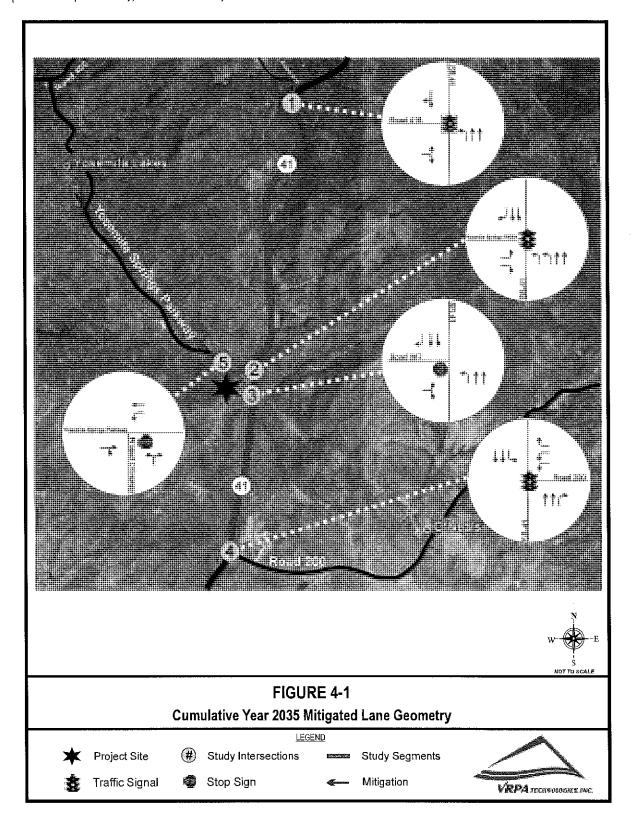




TABLE 4-3

Left Turn and Right Turn Storage Requirements

INTERSECTION	EXISTING STORAGE (ft)	LENGTH	CUMULATIVE YEAR 2035 WITH PROJECT RECOMMENDED QUEUE LENGTH
	NB Left	550	625
OD 44 (Managine Continue Doctor)	SB Right	175	200
SR 41 / Yosemile Springs Parkway	EB Left	125	175
	EB Right	125	550
	NB Right	275	350
SR 41 / Road 200	\$B Left	500	575
SR 417 Road 200	WB Left	225	2 at 225
	WB Right	225	300
SR 41 / Spinelli Road-Road 416	NB Left	400	400
	NB Left		400
SR 41 / Road 207	SB Right		400
Yosemile Springs Parkway / Main Access Driveway	WB Left		125

Queue is measured in feet

# 4.2 Equitable Fair-Share Responsibility

The Project will be responsible for the following mitigation requirements to address project-related impacts within and surrounding the Project site:

Collection of the existing and updated Madera County Road Impact Program fees will be in effect at the time of building permit issuance. This measure assumes that updates of the County's Road Impact Fee Program will include all required improvements to facilities referenced in Section 4.1. Therefore, payment of countywide traffic impact fees would fulfill the Project's fair share responsibility for mitigation of traffic impacts.

The County will use the fees collected, together with fees collected from other developments, to construct priority traffic improvements required to address congestion through to the year 2035. As the Road Impact Fee Program is updated, it will include an assessment of required improvements to address Project and other proposed development impacts on the road and highway system. It should be noted that the widening of SR 41 from 2 to 4 lanes from Road 200 to Road 416 is identified in Madera County's existing fee program. The improvements along Yosemite Springs Parkway identified above are not included in the existing Madera County fee program.

The Project will receive credit toward County Road Impact Fee Program assessments for the cost of those improvements located within the Project site that are implemented or funded by the Project and are included in the County's Fee Program.

According to the Caltrans "Guide for the Preparation of Traffic Impact Studies," the intent of determining the equitable responsibility for mitigation measures is to provide a starting point for early discussions to address traffic mitigation equitability and to calculate the equitable share for mitigation traffic impacts. The



formula used to calculate the equitable share responsibility to Caltrans facilities is as follows:

Equitable Share = (Project Trips)/(Future Year Plus Approved Project Traffic – Existing Traffic)

Table 4-4 shows the equitable share responsibility to Caltrans Facilities as well as Madera County facilities.

# TABLE 4-4

**Equitable Fair-Share Responsibility** 

INTERSECTION	EXISTING 2013	PROJECTTRIPS	CUMULATIVE YEAR 2035 WITH PROJECT	FAIR-SHARE PERCENTAGE
SR-41 at Spinelli Road-Road 416	1,052	121	2,518	8.3%
SR-41 at Yosemile Springs Parkway	1,310	231	3,153	12.5%
SR-41 at Road 207	1,187	219	2,913	12,7%
SR-41 at Road 200	1,359	201	3,332	10.2%
SEGMENTS				
SR-41: Spinetil Road-Road 416 to Yosemite Springs Parkway	1,005	119	2,425	8.4%
SR-41: Yosemile Springs Parkway to Road 207	1,183	80	2,775	5.0%
SR-41: Road 207 to Road 200	1,185	201	2,901	11.7%
Yosemile Springs Parkway: West of SR-41	460	231	1,157	33,1%

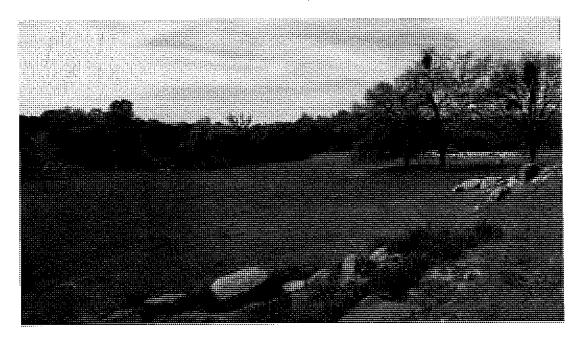




# LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

# BIOLOGICAL EVALUATION YOSEMITE PLAZA MADERA COUNTY, CALIFORNIA



Prepared by:

## LIVE OAK ASSOCIATES, INC.

David Hartesveldt, B.A., Principal Biologist Wendy Fisher, B.S., Plant and Wetland Ecologist Geoffrey Cline, M.S., Wildlife Ecologist

Prepared for:

Dennis Jonathan PO Box 2207 Oakhurst, CA 93644

File No. 1723-01

#### EXECUTIVE SUMMARY

Live Oak Associates, Inc. (LOA) conducted surveys and prepared this biological evaluation for the Yosemite Plaza project in Madera County, California. The approximately 21.5-acre property is located southwest of the intersection of State Route (SR) 41 and Yosemite Springs Parkway, approximately 10 miles south of the unincorporated community of Coarsegold. During March of 2013, LOA surveyed the site for biotic habitats, the plants and animals occurring in them, and sensitive biotic resources protected by state and federal law. Information generated by these surveys was used to assess possible project impact to biological resources of the site and propose mitigation measures for those impacts determined to be significant.

The project site is located in the foothills of central Sierra Nevada near Coarsegold, California. Four biotic habitats, including mixed oak woodland, California annual grassland, seasonal channel, and ruderal/residential were identified on the site. The site was surveyed for special status plant species in late March of 2013, and no populations of such species were present. The site was also examined for special status animal species, or habitat suitable for them. It was determined that the site may harbor populations of the valley elderberry longhorn beetle due to the presence of multiple elderberry shrubs. Western pond turtles inhabit Coarsegold Creek and stock ponds in the immediate project vicinity, and thus western pond turtles may inhabit the seasonal drainage passing through the project site. The seasonal drainage passing through the site and a small reach of a tributary are likely waters of the United States and state of California.

The project will result in potentially significant adverse environmental impact on western pond turtles, valley elderberry longhorn beetles, nesting birds, mixed oak woodland, water quality in the seasonal drainage on site and Coarsegold Creek to which it is tributary, and the habitat values of the on-site drainage. All impacts can be mitigated to a less than significant level. Mitigation measures include the exclusion of pond turtles from construction zones and periodic construction monitoring, dust control during the valley elderberry longhorn beetle flight season, pre-construction surveys for nesting birds and avoidance of active nests, erosion control measures and other best management practices to minimize the discharge of silt and pollutants into the on-site drainage, and the establishment of a 50-foot development-free buffer on either side of the natural drainage bisecting the site (per Madera County General Plan Policy.

The project will result in no effect, or a less than significant effect on special status plant species, most special status animal species, regional wildlife movement patterns, and waters of the U.S. and state of California.

# TABLE OF CONTENTS

andriginging andriging the lightest and the contraction of the contrac

EXECUTIVE SUMMARY	ti
1.0 INTRODUCTION	1
1.1 PROJECT DESCRIPTION	
1.2 REPORT OBJECTIVES	4
1.3 STUDY METHODOLOGY	4
	,
2.0 EXISTING CONDITIONS	6
2.1 BIOTIC HABITATS/Land uses	8
2.1.1 Mixed Oak Woodland	8
2.1.2 California Annual Grassland	11
2.1.3 Natural Seasonal Drainage	12
2.1.4 Residential	1.3
2.2 SPECIAL-STATUS PLANTS AND ANIMALS	13
2.2.2 Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus) - Federally Threatened	20
2.2.3 California Tiger Salamander (Ambystoma californiense) - Federally Threatened, California Threatened	22
2.4 JURISDICTIONAL WATERS	24
2.5 NATURAL COMMUNITIES OF SPECIAL CONCERN	25
2.6 WILDLIFE MOVEMENT CORRIDORS	25
2.0 WIEDER D WOYEMENT CORRIDORO	
3.0 IMPACT ANALYSIS	27
3.1 RELEVANT GOALS, POLICIES, AND LAWS	27
3.1.1 California Environmental Quality Act.	27
3.1.2 Threatened and Endangered Species	28
3.1.3 Migratory Birds	28
3.1.4 Wetlands and Other "Jurisdictional Waters"	29
3.1.5 Madera County General Plan Policies, Natural Resources Element.	30
3.2 PROJECT IMPACTS	30
Potentially Significant Adverse Environmental Impact	30
3.2.1 Potential Impacts to Western Pond Turtle	30
3.2.2 Mortality of Valley Elderberry Longhorn Beetles (VELB)	31
3.2.3 Disturbance to Active Raptor and Other Migratory Bird Nests from Construction Activities During Proj	ect
Implementation	32
3.2.4. Loss of Mixed Oak Habitat for Native Wildlife	33
3.2.5 Degradation of Water Quality in Seasonal Creeks, Reservoirs and Downstream Waters	34
3.2.6 Indirect Impacts to the Seasonal Drainage Passing Through the Project Site	., 36
Less Than Significant Adverse Environmental Impact	36
3.2.7 Loss of Habitat for Special-Status Plants	36
3.2.8 Loss of Habitat for Special-Status Animals	37
3.2.9 Interference with the Movement of Native Wildlife	37
3.2.8 Disturbance to Waters of the U.S.	37
	20
LITERATURE CONSULTED AND/OR CITED	39
APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE	41
APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE	41
APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE	HE.
PROJECT SITE	
PROJECT SITE	
APPENDIX C: SELECTED PHOTOGRAPHS OF THE PROJECT SITE	56
AFFENDIA C. SELECTED FITOTOGRACIOS OF THE EROJECT SITE	50
APPENDIX D: EARLY CONSULTATION/PROJECT REVIEW LETTER, CDFW November 3	27
APPENDIX D: EARLY CONSULTATION/PROJECT REVIEW LETTER, CDFW November 2012	۷, 60

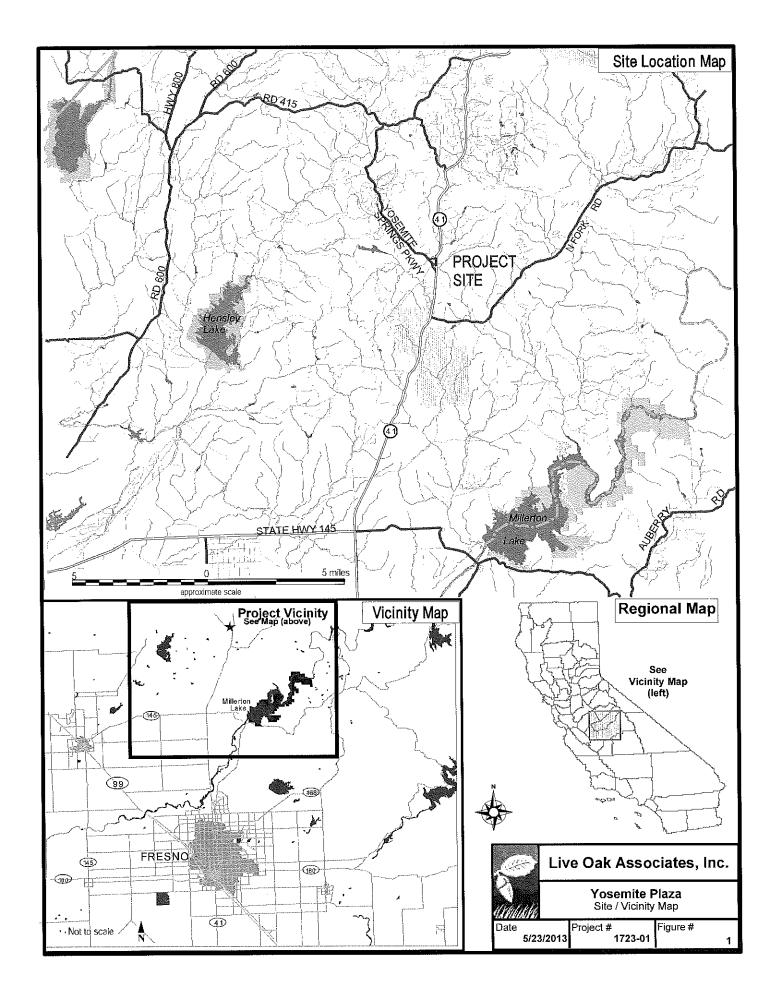
#### 1.0 INTRODUCTION

The technical report that follows describes the biotic resources of the approximately 21.5-acre Yosemite Plaza project site (APN 050-062-040) located in the Sierra foothills of Madera, County, California, and evaluates possible impact to those resources resulting from future site development. The project site is located southwest of, and adjacent to, the junction of State Route (SR) 41 and Yosemite Springs Parkway, approximately 10 miles south of Coarsegold (Figure 1). Yosemite Springs Parkway defines the site boundary to the north and SR 41 defines the site boundary to the east. Road 207 is located to the west and south of the site. The project site can be found on the *O'Neals*, California 7.5 Minute Series United States Geological Survey (USGS) topographical quadrangle (Mount Diablo Base and Meridian) within the northeast quarter of Section 13, Township 9 South, Range 20 East (Figure 2).

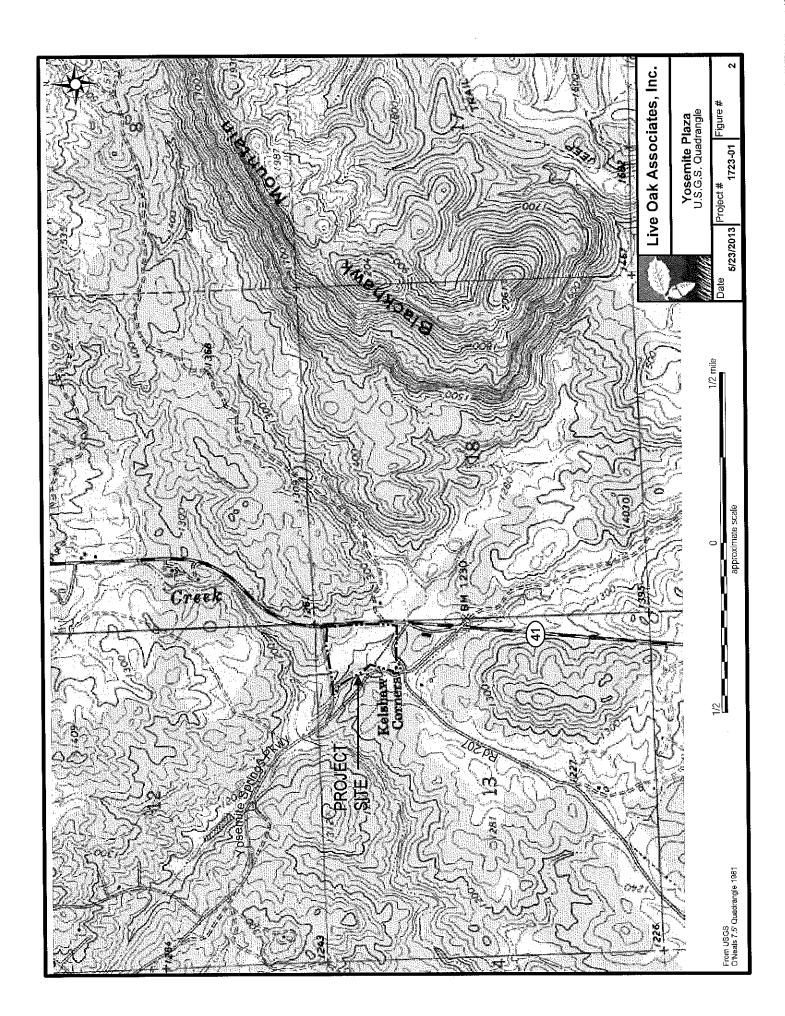
#### 1.1 PROJECT DESCRIPTION

At the time this biological evaluation report was prepared the project design had not been finalized. The results of the biological surveys completed as part of this study were being used by the project sponsor to make modifications to the original project design in order to eliminate project impacts to some sensitive biological resources. This report reflects proposed changes in project design per communication with the project sponsor. The project evaluated by this report includes the following elements:

- The project sponsor proposes to rezone the site from agriculture to commercial rural highway and urban residential multiple family.
- The final project design for the 21.5-acre parcel will include a mini mart/gas station with drive-through, a car wash, an apartment complex, and retail and professional business park on approximately 14 acres of the project site.
- The project will avoid all elderberry shrubs identified on the site by at least 20 feet as measured by the shrub's dripline.
- The project will avoid encroachment on the natural drainage (creek) and its tributary passing through the project site.



interpretario de la composition della composition de la composition de la composition de la composition della composition de la composition de la composition della compositio



LOA understands that the project sponsor wishes to retain all the elements of the original project design with the exception that the project layout will change in order to avoid impacts to elderberry shrubs and natural drainages. Thus, the project sponsor has provided LOA with sufficient information to evaluate project impacts to sensitive biotic resources occurring or potentially occurring on the site, and identify suitable mitigation measures for those impacts determined to be potentially significant.

#### 1.2 REPORT OBJECTIVES

The development of previously undeveloped land may damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of Madera County. This report addresses issues related to: 1) sensitive biotic resources occurring on the project site; 2) the federal, state, and local laws regulating such resources; and 3) mitigation measures which may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies. As such, the objectives of this report are to:

- Summarize all information related to existing biological resources of the project site and immediate vicinity;
- Make reasonable inferences about the biological resources that may occur on the project site based on habitat suitability and the proximity of the site to a species' known range;
- Summarize all state and federal natural resource protection laws that may be relevant to possible future site development;
- Identify and discuss project impacts to biological resources likely to occur on the site within the context of CEQA or any state or federal laws;
- Identify avoidance and mitigation measures that would reduce impacts to a less-thansignificant level (as identified by CEQA) and are generally consistent with recommendations of the resource agencies for affected biological resources.

#### 1.3 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the project site discussed in Section 2.0. Sources of information

used in the preparation of this analysis included: the California Natural Diversity Data Base (CNDDB) (CDFW 2013a); the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2013); State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2013b), State and Federally Listed Endangered and Threatened Animals of California (CDFW 2013c), Special Animals (CDFG 2011); California's Wildlife, Volumes I, II, and III (Zeiner et. al. 1990); numerous planning documents and biological studies for projects in the area, many of which have been prepared by LOA; and manuals and references related to plants and animals of California. Live Oak Associates, Inc. (LOA), named Hartesveldt Ecological Consulting Services at the time, conducted biological surveys on the site in November of 1998, and subsequently prepared a report summarizing the results of those surveys. Some of the information included for that effort was utilized for completion in this report.

A reconnaissance-level field survey of the project site was completed on March 27, 2013 by LOA biologists Geoffrey Cline and Wendy Fisher. Geoffrey Cline also surveyed the site on April 11, 2013. The surveys consisted of walking through the project site and surveying for special-status species habitats, including California tiger salamander (CTS) (Ambystoma californiense) and valley elderberry longhorn beetle (VELB) (Desmocerus californicus dimorphus), and a delineation of jurisdictional waters. While on site, biologists noted prominent characteristics of all onsite habitats, identified all plant and animal species observed, and collected detailed data regarding potential special-status species habitats, jurisdictional waters, and blue elderberry shrubs, the obligate habitat of the federally threatened VELB. A protocollevel survey was conducted for the VELB that meets the United States Fish and Wildlife Service (USFWS) Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS 1999). In addition, the pond located west of the project site was investigated to determine if it might provide breeding habitat for CTS. Information gathered in the field was also used to identify the plant communities of the site, identify regionally-occurring plants and animals that are present and/or could be present in those communities, characterize regional wildlife movement patterns and the role the site plays in those movements, and map biologically sensitive areas that may be subject to the regulations of state and federal resource agencies.

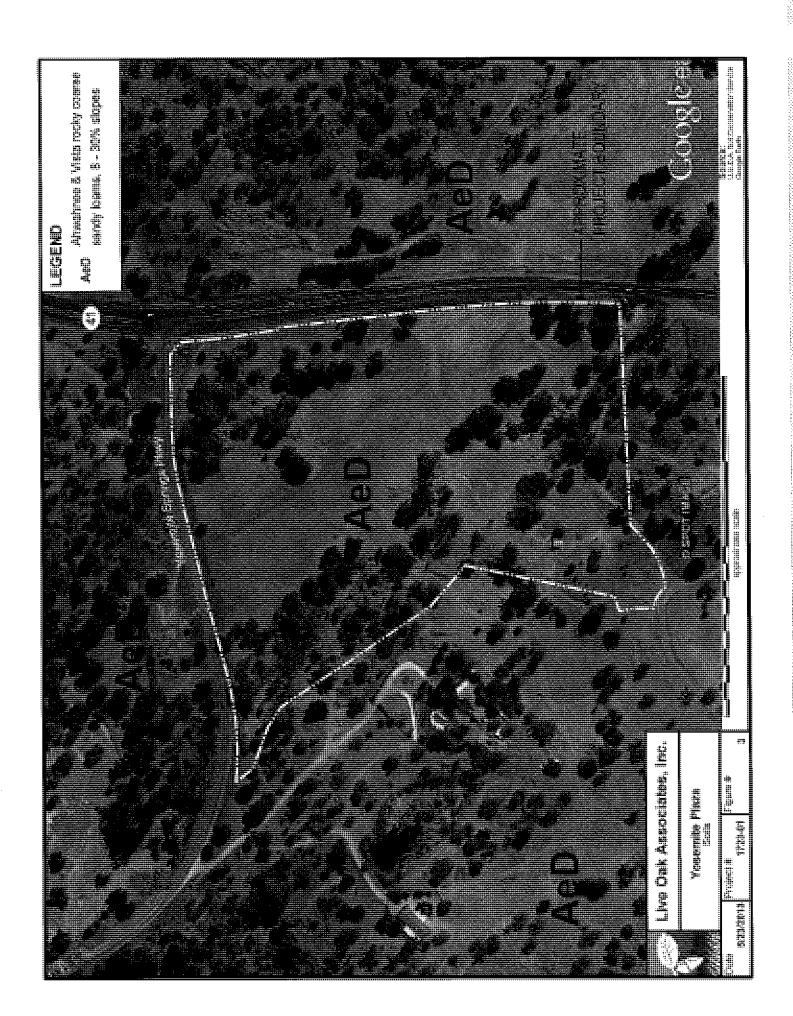
#### 2.0 EXISTING CONDITIONS

The project site is located in the foothills of California's Sierra Nevada, a 400-mile long range of mountains located between California's Central Valley on the west and the deserts of Nevada on the east. Approximately 70 miles in width, the Sierra ranges in elevation from a low of approximately 500 feet National Geodetic Vertical Datum (NGVD) at the location of its lowest western foothills up to 14,000 feet at its crest. Located in the western foothills, the elevations of the project site range from 1,170 feet National Geodetic Vertical Datum (NGVD) near the site's northwest corner to 1,250 NGVD along the site's northeast corner (see Figure 2). The topography of the project site consists of nearly level to gently rolling terrain.

One soil mapping unit, Ahwahnee and Vista coarse sandy loam, eight to thirty percent slopes, has been identified on the project site, including (NRCS 2013) (Figure 3). Ahwahnee and Vista soils are moderately deep, well drained soils formed in weathered granitic rocks. Granite outcrops are common in this soil mapping unit, and were present at numerous scattered locations of the project site.

The Sierra Nevada foothills have a Mediterranean climate characterized by hot dry summers and cool wet winters. Annual precipitation in the general vicinity of the project site is highly variable from year to year. Average annual rainfall is 15-20 inches, almost 85% of which falls between the months of October and March. Winter rainfall infiltrates the soils of the project site through the early part of the winter. During winters of average precipitation the soils of the site reach field capacity by February or March, at which time intermittent or seasonal flows of runoff will appear in the natural drainage (creek) and its tributary passing through the site.

At the time of the field survey conducted in March and April 2013, most of the site was undeveloped. The only significant development was a single family residence located at the site's southwest corner. Along its northern border (adjacent to Yosemite Springs Parkway), the site was being used as a staging area for temporary storage of boulders. The abutments of an old road crossing were observed adjacent to the small seasonal creek that bisects the site. The



remainder of the site was in a natural state at the time of the field surveys conducted for this study.

#### 2.1 BIOTIC HABITATS/LAND USES

Four land uses/biotic habitats were observed within the project site and included mixed oak woodland, California annual grassland, seasonal channel, and residential (Sawyer et al. 2009) (Figure 4). Acreages of each biotic habitat are shown in Table 1. The list of vascular plants observed on the site has been provided in Appendix A and the list of terrestrial vertebrates using, or potentially using, the site has been provided in Appendix B. Selected photographs of the site can be found in Appendix C.

Land Use/Biotic Habitats	Approximate Acreage	Approximate Square Footage
Mixed Oak Woodland	8.8	383,328
California Annual Grassland	10.3	448,668
Seasonal Channel (below top of bank)	2.1	91,476
Ruderal/Residential	0.33	14,375
Total	21.53	937,847

#### 2.1.1 Mixed Oak Woodland

Mixed oak woodland is the primary biotic habitat of the project site. This habitat is common throughout the lower to middle elevations of the western Sierra Nevada. As the name implies, the dominant trees are oaks of various species, including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), and interior live oak (*Quercus wislizenii*). Interspersed with the oaks were occasional foothill pines (*Pinus sabiniana*). Trees were generally spaced openly, allowing understory plants an abundance of light. Woody vegetation within the understory near the