



February 13, 2017

TO: Retail Operations Committee
Ed Colley, Chair
Dean Efstathiou, Vice Chair
Robert DiPrimio
R. J. Kelly
William Pecs

FROM: Keith Abercrombie
Retail Manager

A meeting of the Retail Operations Committee is scheduled to meet on **Tuesday, February 28, 2017 at 5:30 PM** at the Santa Clarita Water Division located at 26521 Summit Circle, Santa Clarita, CA 91350 in the Training Room.

MEETING AGENDA

1. Public Comments
2. * Water Production Report
3. * Recommend Receiving and Filing of SCWD January 2017 Finance and Expenditure Report
4. * Recommend Receiving and Filing of SCWD FY 2016/17 Midyear Budget Report
5. * Recommend Approval of a Resolution Adopting the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program Under the California Environmental Quality Act for the Los Angeles Residential Community Ranch Water Pipeline Project
6. SCWD Rate Study Discussion
7. * Recommend Adoption of a Resolution Approving the SB 221 Water Supply Verification for Skyline Ranch Project (VTTM 60922)
8. * Committee Planning Calendar
9. General Report on Retail Operation Activities
10. Adjournment

* Indicates attachment
● To be distributed

BOARD OF DIRECTORS

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"A PUBLIC AGENCY PROVIDING RELIABLE, QUALITY WATER AT A REASONABLE COST TO THE SANTA CLARITA VALLEY"

February 13, 2017
Page 2

cc: CLWA Board of Directors
Joe Byrne

Notice:

Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning (661) 297-1600, or writing to Castaic Lake Water Agency at 27234 Bouquet Canyon Road, Santa Clarita, CA 91350. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that Agency staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the Agency to provide the requested accommodation.

Pursuant to Government Code Section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection at the Castaic Lake Water Agency, located at 27234 Bouquet Canyon Road, Santa Clarita, California 91350, during regular business hours. When practical, these public records will also be made available on the Agency's Internet Web site, accessible at <http://www.clwa.org>.

MBS

SANTA CLARITA WATER DIVISION
WATER PRODUCTION 2017 (PER ACRE FEET)

WELLS (ALLUVIUM)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
LOST CANYON NO.2	1												1
LOST CANYON NO.2A	1												1
SAND CANYON	0												0
MITCHELL 5A	0												0
MITCHELL 5B	0												0
SIERRA	1												1
NORTH OAKS EAST	1												1
NORTH OAKS CENTRAL	0												0
NORTH OAKS WEST	0												0
HONBY	0												0
STADIUM (Destroyed 3/2016)	0												0
GUIDA	8												8
CLARK	0												0
SANTA CLARA	1												1
VALLEY CENTER	4												4
TOTAL ALLUVIUM	17	0	0	0	0	0	0	0	0	0	0	0	17
CUMULATIVE ALLUVIUM	17												
=====													
SURFACE (IMPORTED)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
SC-1 BOUQUET	152												152
SC-2 HONBY	200												200
SC-3 WILEY	35												35
SC-4 HONBY #2	107												107
SC-5 RIO VISTA	31												31
SC-6 LOST CANYON	62												62
SC-7	80												80
SC-8	78												78
SC-9	101												101
SC-10	0												0
SC-11	0												0
SC-12	64												64
SC-13	42												42
TOTAL (IMPORTED)	952	0	0	0	0	0	0	0	0	0	0	0	952
CUMULATIVE (IMPORTED)	952												
=====													
TOTAL MONTH	969	0	0	0	0	0	0	0	0	0	0	0	969
CUMULATIVE TOTAL	969												
=====													
PERCENT (WELL)	1.8%												1.8%
PERCENT (IMPORTED)	98.2%												98.2%

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SANTA CLARITA WATER DIVISION
2017 WATER PRODUCTION REPORT

2017 WATER PRODUCTION REPORT

	MONTHS												TOTAL	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
TOTAL WELLS	17													17
CUMULATIVE WELLS	17													
TOTAL (IMPORTED)	952													952
CUMULATIVE (IMPORTED)	952													
TOTAL MONTH	969													969
CUMULATIVE MONTH	969													
PERCENT (WELL)	1.8%													1.8%
PERCENT (IMPORTED)	98.2%													98.2%

NOTE:

UNITS ARE ACRE FEET

2016 WATER PRODUCTION REPORT

	MONTHS												TOTAL	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
TOTAL WELLS	289	320	268	419	416	462	437	319	276	187	83	9		3485
CUMULATIVE WELLS	289	609	877	1296	1712	2174	2611	2930	3206	3393	3476	3485		
TOTAL (IMPORTED)	829	1060	1185	1176	1612	1935	2404	2663	2368	2128	1712	1377		20449
CUMULATIVE (IMPORTED)	829	1889	3074	4250	5862	7797	10201	12864	15232	17360	19072	20449		
TOTAL MONTH	1118	1380	1453	1595	2028	2397	2841	2982	2644	2315	1795	1386		23934
CUMULATIVE MONTH	1118	2498	3951	5546	7574	9971	12812	15794	18438	20753	22548	23934		
PERCENT (WELL)	25.8%	23.2%	18.4%	26.3%	20.5%	19.3%	15.4%	10.7%	10.4%	8.1%	4.6%	0.6%		14.6%
PERCENT (IMPORTED)	74.2%	76.8%	81.6%	73.7%	79.5%	80.7%	84.6%	89.3%	89.6%	91.9%	95.4%	99.4%		85.4%

NOTE:

UNITS ARE ACRE FEET

2013 WATER PRODUCTION REPORT

	MONTHS												TOTAL	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
TOTAL WELLS	994	499	695	675	824	726	720	607	416	497	312	297		7263
CUMULATIVE WELLS	994	1493	2188	2863	3687	4413	5133	5740	6156	6653	6965	7263		
TOTAL (IMPORTED)	584	949	1226	1630	1965	2358	2708	2849	2820	2097	1675	1473		22334
CUMULATIVE (IMPORTED)	584	1533	2759	4389	6354	8712	11420	14269	17089	19186	20861	22334		
TOTAL MONTH	1578	1448	1921	2305	2789	3084	3428	3456	3236	2594	1987	1770		29597
CUMULATIVE MONTH	1578	3026	4947	7252	10041	13125	16553	20009	23245	25839	27826	29597		
PERCENT (WELL)	63.0%	34.5%	36.2%	29.3%	29.5%	23.5%	21.0%	17.6%	12.9%	19.2%	15.7%	16.8%		24.5%
PERCENT (IMPORTED)	37.0%	65.5%	63.8%	70.7%	70.5%	76.5%	79.0%	82.4%	87.1%	80.8%	84.3%	83.2%		75.5%

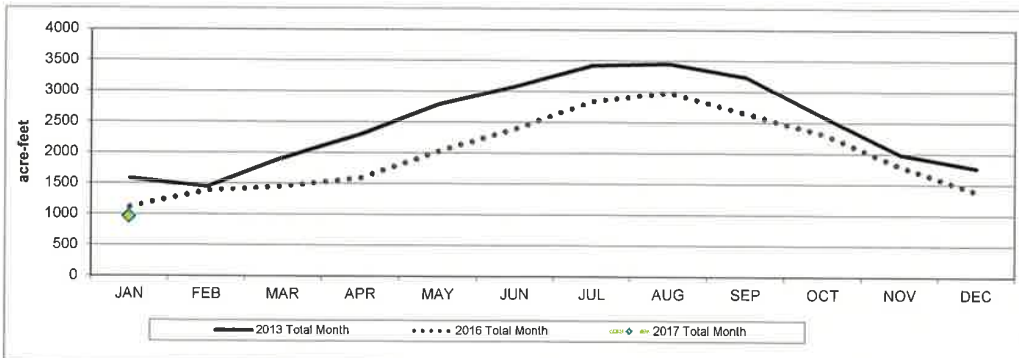
NOTE:

UNITS ARE ACRE FEET

PERCENT CHANGE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	-38.6%											

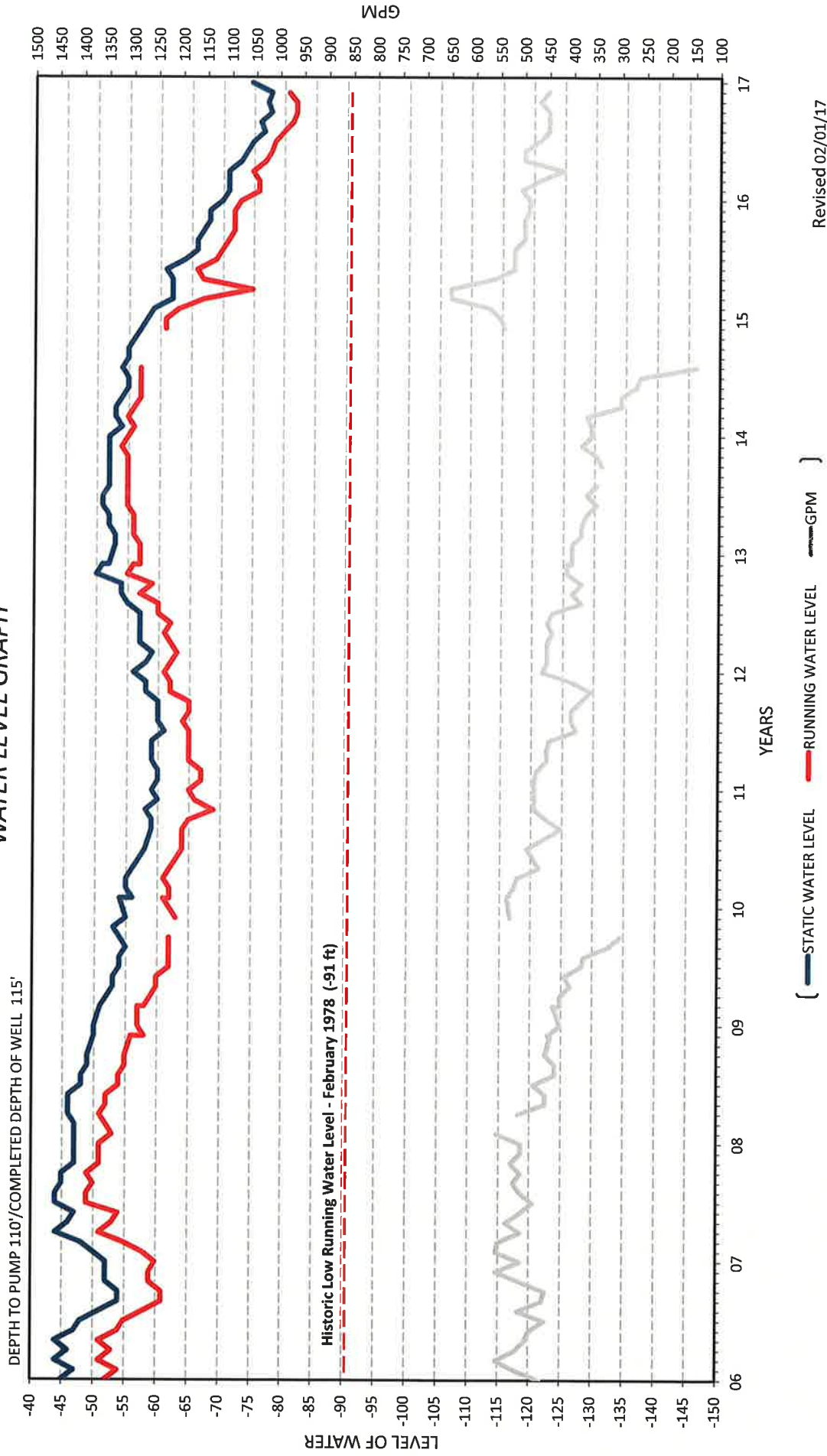
NOTE:

PERCENT CHANGE ON TOTAL MONTH
CY 17 COMPARED TO CY 13



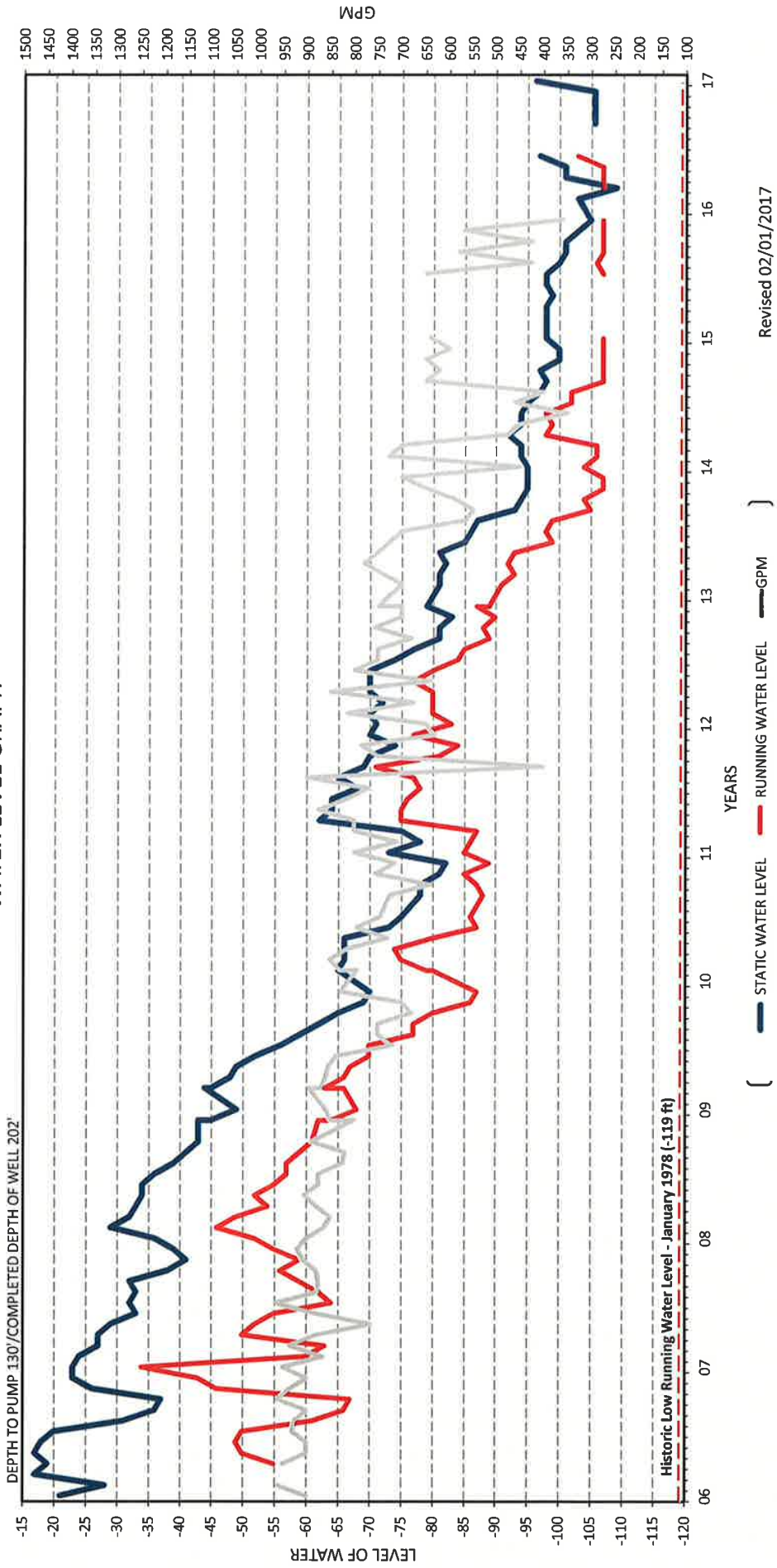
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CLARK #15 WATER LEVEL GRAPH



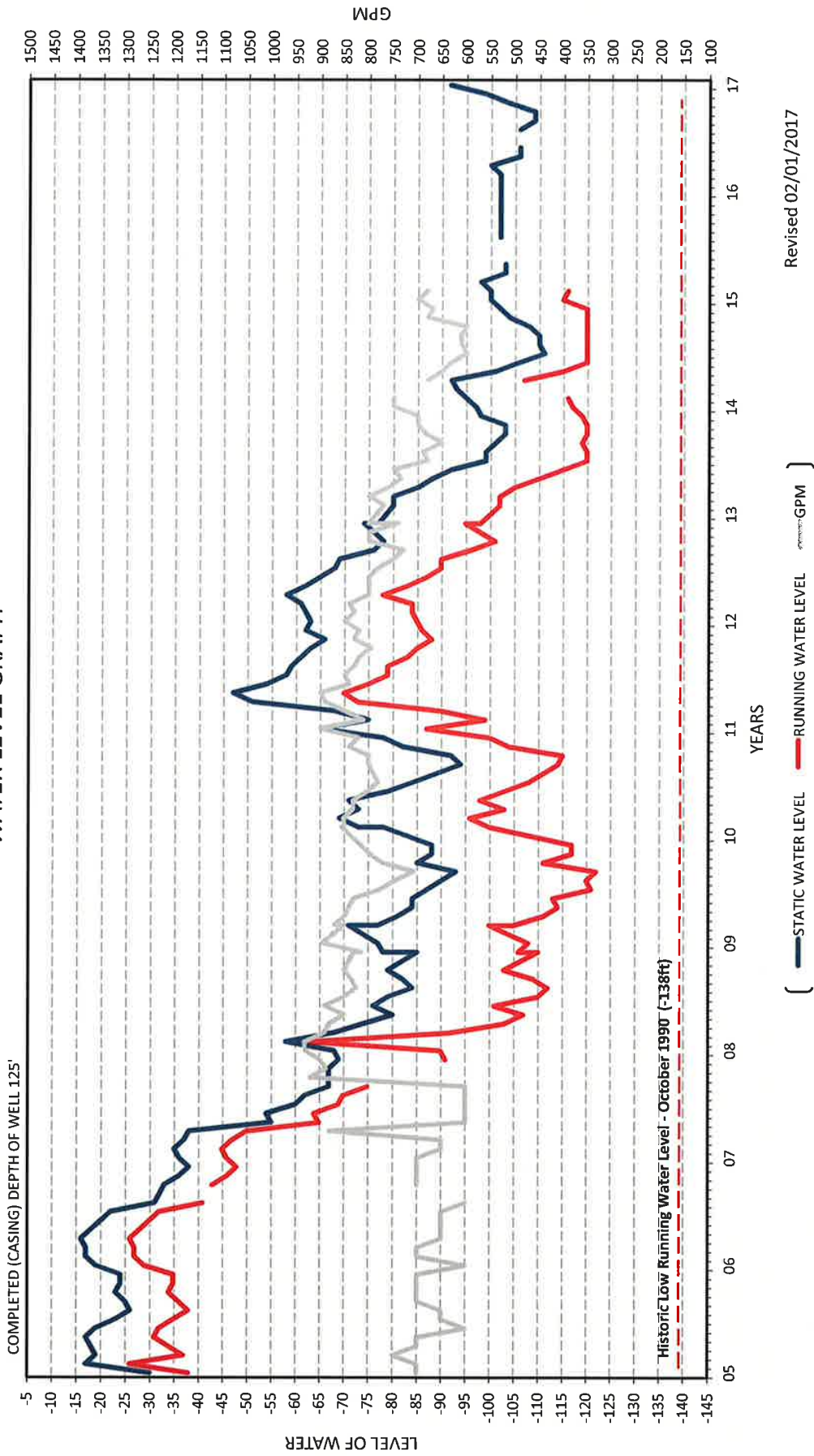
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HONBY #12 WATER LEVEL GRAPH



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LOST CANYON #2 WATER LEVEL GRAPH



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SCWD
Finance
and
Expenditure
Report

January 2017

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SANTA CLARITA WATER COMPANY
COMPARATIVE MONTHLY BILLING AND CUSTOMERS

<u>Month</u>		<u>FY 2011/12</u>	<u>FY 2012/13</u>	<u>FY 2013/14</u>	<u>FY 2014/15</u>	<u>FY 2015/16</u>	<u>FY 2016/17</u>	<u>Increase (Decrease)</u>
July	Billed	2,685,842	3,759,148	3,892,161	3,274,573	2,618,096	2,989,304	371,208
	Customers	28,114	28,337	28,758	29,270	29,592	30,337	745
August	Billed	2,981,507	2,524,356	2,477,684	3,274,278	2,541,148	3,194,708	653,561
	Y-T-D Customers	5,667,349 28,162	6,283,504 28,374	6,369,845 28,845	6,548,851 29,286	5,159,244 29,603	6,184,013 30,357	1,024,769 754
September	Billed	3,017,552	3,345,948	3,210,215	3,143,418	2,603,494	3,370,120	766,626
	Y-T-D Customers	8,684,901 28,171	9,629,452 28,390	9,580,060 28,890	9,692,269 29,327	7,762,738 29,676	9,554,132 30,443	1,791,394 767
October	Billed	2,640,048	3,683,937	3,913,719	2,944,686	2,556,755	3,318,158	761,403
	Y-T-D Customers	11,324,949 28,195	13,313,389 28,416	13,493,780 28,937	12,636,955 29,369	10,319,493 29,770	12,872,290 30,507	2,552,797 737
November	Billed	2,285,840	2,010,788	2,106,384	2,671,071	2,452,943	2,806,944	354,001
	Y-T-D Customers	13,610,788 28,191	15,324,177 28,435	15,600,164 28,960	15,308,026 29,397	12,772,436 29,784	15,679,234 30,537	2,906,798 753
December	Billed	1,781,331	2,128,473	2,350,910	2,243,834	2,276,186	2,491,402	215,216
	Y-T-D Customers	15,392,119 28,237	17,452,650 28,477	17,951,074 29,067	17,551,860 29,418	15,048,622 29,828	18,170,636 30,593	3,122,014 765
January	Billed	1,907,169	2,110,058	2,067,673	1,843,858	2,019,978	2,023,221	3,243
	Y-T-D Customers	17,299,288 28,250	19,562,708 28,499	20,018,747 29,085	19,395,718 29,425	17,068,599 30,063	20,193,857 30,618	3,125,257 555
February	Billed	1,930,461	1,446,673	2,338,253	1,932,064	1,771,606		
	Y-T-D Customers	19,229,749 28,225	21,009,381 28,538	22,357,000 29,134	21,327,782 29,434	18,840,206 30,093		
March	Billed	1,990,963	1,909,701	2,058,312	1,882,036	2,011,966		
	Y-T-D Customers	21,220,713 28,259	22,919,082 28,580	24,415,312 29,171	23,209,817 29,444	20,852,172 30,163		
April	Billed	1,917,892	2,748,056	2,098,341	2,181,342	2,055,400		
	Y-T-D Customers	23,138,605 28,269	25,667,139 28,643	26,513,653 29,201	25,391,159 29,442	22,907,572 30,199		
May	Billed	2,083,470	1,970,583	2,475,870	2,351,788	2,269,230		
	Y-T-D Customers	25,222,075 28,317	27,637,722 28,658	28,989,522 29,216	27,742,947 29,474	25,176,801 30,234		
June	Billed	2,726,889	2,806,693	2,945,043	2,218,952	2,607,935		
	Y-T-D Customers	27,948,964 28,330	30,444,415 28,688	31,934,566 29,232	29,961,899 29,502	27,784,736 30,278		
Total Average	Billed	27,948,964	30,444,415	31,934,566	29,961,899	27,784,736		
	Customers	28,227	28,503	29,041	29,399	29,940		

**CASTAIC LAKE WATER AGENCY
SANTA CLARITA WATER DIVISION
PRO-FORMA CASH REPORT
Preliminary**

	<u>January</u>				<u>12 months ending June 30, 2017</u>			
	<u>Budget</u>	<u>Actual</u>	<u>Over/(Under) \$</u>	<u>Budget %</u>	<u>Annual Budget</u>	<u>Revised Estimate</u>	<u>Over/(Under) \$</u>	<u>Budget %</u>
Beginning Balance at 1/1/17	26,686,411	32,013,256	5,326,845		28,403,917	28,403,917	-	
Water Sales	2,204,947	2,538,526	333,579	15.1%	28,840,800	30,827,724	1,986,924	6.9%
Other- Incl'd Interest & Rental Inc.	81,275	113,927	32,652	40.2%	605,520	622,922	17,402	2.9%
	<u>28,972,633</u>	<u>34,665,709</u>	<u>5,693,076</u>	<u>19.6%</u>	<u>57,850,237</u>	<u>59,854,563</u>	<u>2,004,326</u>	<u>3.5%</u>
Disbursements								
Purchased Water	742,503	793,772	51,269	6.9%	10,706,000	10,703,330	(2,670)	0.0%
Power for Pumping	80,000	11,127	(68,873)	-86.1%	1,700,000	1,698,818	(1,182)	-0.1%
Payroll- Regular	492,160	466,563	(25,597)	-5.2%	4,265,400	4,080,822	(184,578)	-4.3%
Payroll- Overtime and On-Call	20,988	13,620	(7,368)	-35.1%	181,900	192,806	10,906	6.0%
Shared Labor/Burden and Benefits from CLWA	71,595	65,421	(6,174)	-8.6%	620,500	588,084	(32,416)	-5.2%
Outside Services	232,590	92,329	(140,261)	-60.3%	2,791,100	2,633,786	(157,314)	-5.6%
Professional Services - Legal	8,000	8,903	903	11.3%	140,000	176,453	36,453	26.0%
Professional Services - Other	13,750	1,726	(12,024)	-87.4%	165,000	154,331	(10,669)	-6.5%
Other								
Customer Refunds	-	2,437	2,437		-	56,973	56,973	
Vehicle and Equipment Expense	24,958	15,777	(9,181)	-36.8%	299,500	263,240	(36,260)	-12.1%
Payroll Taxes	7,419	7,386	(33)	-0.4%	64,300	64,009	(291)	-0.5%
Pension and Benefits	225,000	153,119	(71,881)	-31.9%	1,868,400	1,779,402	(88,998)	-4.8%
OPEB	50,500	52,173	1,673	3.3%	393,000	419,296	26,296	6.7%
Insurance	9,500	7,659	(1,841)	-19.4%	361,100	358,672	(2,428)	-0.7%
Rental Expense	2,000	1,986	(14)	-0.7%	23,000	21,469	(1,531)	-6.7%
Utilities	10,400	12,652	2,252	21.7%	139,200	143,847	4,647	3.3%
Uniforms	1,592	1,292	(300)	-18.8%	19,100	15,597	(3,503)	-18.3%
Material and Supply Expense	101,883	80,027	(21,856)	-21.5%	1,222,600	1,253,730	31,130	2.5%
Dues and Membership	1,700	1,000	(700)	-41.2%	60,200	58,045	(2,155)	-3.6%
Directors Compensation	1,000	1,141	141	14.1%	12,000	9,536	(2,464)	-20.5%
Employee Expense	3,017	467	(2,550)	-84.5%	36,200	30,131	(6,069)	-16.8%
Miscellaneous Operating Expense	10,567	1,456	(9,111)	-86.2%	126,800	109,299	(17,501)	-13.8%
Less: Capitalized Expense - Co.	(8,525)	(11,705)	(3,180)	37.3%	(102,300)	(91,244)	11,056	-10.8%
- Non Co.	(2,758)	(27,376)	(24,618)	892.6%	(33,100)	(159,658)	(126,558)	382.4%
sub-total Other	438,253	299,491	(138,762)	-31.7%	4,490,000	4,332,344	(157,656)	-3.5%
Total Operating Disbursements	2,099,839	1,752,952	(346,887)	-16.5%	25,059,900	24,560,774	(499,127)	-2.0%
COP Series 2010B Principal and Interest Payment	335,294	335,288	(6)		670,588	670,582	(6)	0.0%
Revenue Bond Series 2011A Principal and Interest Payment	1,069,256	1,069,224	(32)		2,138,512	2,138,481	(32)	0.0%
Capital Expenditures- Retail Division*	569,267	116,836	(452,431)	-79.5%	6,831,200	5,794,393	(1,036,807)	-15.2%
	<u>4,073,656</u>	<u>3,274,300</u>	<u>(799,356)</u>	<u>-19.6%</u>	<u>34,700,200</u>	<u>33,164,229</u>	<u>(1,535,971)</u>	<u>-4.4%</u>
Ending Balance at 1/31/17	<u>24,898,977</u>	<u>31,391,409</u>	<u>6,492,432</u>	<u>26.1%</u>	<u>23,150,037</u>	<u>26,690,334</u>	<u>3,540,297</u>	<u>15.3%</u>

* Includes Expansion projects which will be transferred from Expansion Fund when the projects are complete.

**CASTAIC LAKE WATER AGENCY
SANTA CLARITA WATER DIVISION
PRO-FORMA CASH REPORT
FY 2016/17**

	July	August	September	October	November	December	January	February	March	April	May	June	Revised
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
CLWA ACCOUNT													
Beginning Balance	28,403,917	28,043,273	29,130,264	28,559,539	30,153,327	31,564,045	32,013,256	31,391,409	29,958,545	28,827,004	28,182,768	27,551,888	28,403,917
Cash Receipts	3,075,813	3,476,024	2,526,643	3,876,224	3,332,632	2,436,770	2,634,800	1,378,852	1,729,907	2,241,044	2,420,938	2,339,807	31,450,646
	31,479,730	31,519,297	31,656,907	32,435,763	33,485,959	34,020,815	34,648,056	32,770,261	31,688,452	31,068,048	30,603,706	29,891,695	59,854,563
Disbursements													
Purchased Water	907,956	1,004,083	1,057,059	996,675	947,431	862,394	793,772	718,503	733,535	778,567	927,207	976,148	10,703,330
Power for Pumping	74,720	153,312	332,316	243,995	27,945	186,403	11,127	107,000	107,000	130,000	150,000	175,000	1,698,818
Payroll	301,764	466,204	335,679	325,225	318,694	335,379	480,183	342,100	342,100	342,100	342,100	342,100	4,273,628
Shared Labor/Burden & Benefits CLWA	40,015	62,653	43,135	46,325	45,013	46,867	65,421	47,731	47,731	47,731	47,731	47,731	588,084
Outside Services	307,802	141,277	111,494	122,185	92,734	73,466	74,676	345,792	345,792	345,792	345,792	345,792	2,633,786
Professional - Legal	36,296	35,334	3,075	39,304	14,163	14,378	8,903	5,000	5,000	5,000	5,000	5,000	176,453
Professional - Other	17,436	7,164	19,934	966	3,530	3,575	1,726	20,000	20,000	20,000	20,000	20,000	154,331
Other	252,697	468,233	397,006	403,537	389,545	424,502	299,491	331,947	366,647	322,447	320,345	355,947	4,332,344
	1,938,686	2,338,260	2,299,698	2,178,212	1,839,055	1,946,964	1,735,299	1,918,073	1,967,805	1,991,637	2,158,175	2,267,718	24,560,774
COP Principal and Interest Payment	335,294	-	-	-	-	-	335,288	-	-	-	-	-	670,582
Revenue Bond Principal and Interest Payment	1,069,256	-	-	-	-	-	1,069,224	-	-	-	-	-	2,138,481
Capital Expenditures- Retail Division	93,221	50,773	797,670	104,224	62,859	60,595	116,836	893,643	893,643	893,643	893,643	933,643	5,794,393
Capital Expenditures- COP	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Disbursements	3,436,457	2,389,033	3,097,368	2,282,436	1,901,914	2,007,559	3,256,647	2,811,716	2,861,448	2,885,280	3,051,818	3,201,361	33,164,229
Ending Balance	28,043,273	29,130,264	28,559,539	30,153,327	31,584,045	32,013,256	31,391,409	29,958,545	28,827,004	28,182,768	27,551,888	26,690,334	26,690,334

**CASTAIC LAKE WATER AGENCY
SANTA CLARITA WATER DIVISION
PRO-FORMA CASH REPORT
Fiscal Year Comparison**

	<u>FY 2012/13 Actual</u>	<u>FY 2013/14 Actual</u>	<u>FY 2014/15 Actual</u>	<u>FY 2015/16 Actual</u>	<u>FY 2016/17 Estimated</u>
Beginning Balance	24,722,448	27,202,406	28,985,121	29,035,414	28,403,919
Water Sales	30,322,257	32,044,913	30,348,919	27,121,329	30,827,724
Other- Including Interest and Rental Income	466,950	491,881	596,296	1,365,513	622,922
	<u>55,511,655</u>	<u>59,739,200</u>	<u>59,930,336</u>	<u>57,522,256</u>	<u>59,854,565</u>
Disbursements					
Purchased Water	8,075,382	8,250,004	7,752,831	8,142,302	10,703,330
Power for Pumping	1,559,152	1,735,296	1,927,936	1,664,988	1,698,818
Payroll	3,953,267	4,192,582	4,369,231	4,216,721	4,861,712
Outside Services	1,558,421	1,731,548	1,965,414	2,033,757	2,633,786
Professional Services - Legal	99,871	69,736	108,908	136,223	176,453
Professional Services - Other	286,723	153,064	89,740	100,107	154,331
Other	3,538,865	3,552,807	3,635,798	4,407,542	4,332,346
	<u>19,071,681</u>	<u>19,685,037</u>	<u>19,849,858</u>	<u>20,701,640</u>	<u>24,560,776</u>
COP Principal and Interest Payment	961,086	959,754	1,242,459	972,686	670,582
Revenue Bond Principal and Interest Payment	3,623,342	4,074,661	6,257,237	4,502,299	2,138,481
Capital Expenditures	4,199,280	6,034,627	3,545,368	2,941,712	5,794,393
Total Disbursements	27,855,389	30,754,079	30,894,922	29,118,337	33,164,231
Cal PERS Side Fund Payment	(453,860)				
Ending Balance	<u>27,202,406</u>	<u>28,985,121</u>	<u>29,035,414</u>	<u>28,403,919</u>	<u>26,690,334</u>

Reserve Funds

Operating Expense Fund	FY 2016/17 Beginning Balance	FY 2016/17 Additions	Target FY 2016/17 Total in Reserves	
	\$ 5,691,100	\$ 334,775	\$ 6,265,000	
Rate Stabilization Fund	FY 2016/17 Beginning Balance	FY 2016/17 Additions	Target FY 2016/17 Total in Reserves	
	\$ 2,653,530	\$ 134,488	\$ 2,884,080	
Capital Reserve Fund	FY 2016/17 Beginning Balance	FY 2016/17 Additions	Target FY 2016/17 Total in Reserves	
	\$ 1,000,000	\$ -	\$ 1,000,000	
Emergency Reserve Fund	FY 2016/17 Beginning Balance	FY 2016/17 Additions	Target FY 2016/17 Total in Reserves	
	\$ 1,000,000	\$ -	\$ 1,000,000	
Unrestricted Fund	FY 2016/17 Beginning Balance	FY 2016/17 Additions	FY 2016/17 Estimated Use of Reserves	FY 2016/17 Estimated Year End Total in Fund
	\$ 18,668,416	\$ -	\$ 4,163,969	\$ 14,504,447
SCWD Capital Project Funds				
Capital Project Fund from Operating Revenues	FY 2016/17 Beginning Balance	FY 2016/17 Additions	FY 2016/17 Estimated Use of Reserves	FY 2016/17 Estimated Year End Total in Fund
	\$ -	\$ 6,831,200	\$ 5,794,393	\$ 1,036,807
Total Reserve and Capital Project Funds			\$	26,690,334

SCWD Fund Summary

Operating Expense Reserve Fund – 25% of Annual Operating Expense Budget

The Operating Expense Fund is to be used for working cash and unscheduled costs relating to the operation of the retail water system. Additions to the Operating Expense Fund are made from retail water revenues. The Fund was established in January 2004 to reach the target by June 2017. Currently the Operating Reserve Fund is set at 25% of annual operating expense budget.

	FY 2016/17 Beginning Balance*	FY 2016/17 Year to Date Additions	FY 2016/17 Year to Date Total in Reserves	Target as of June 2017
Operating Expense Fund	\$ 5,691,100	\$ 334,775	\$ 6,025,875	\$ 6,265,000

Rate Stabilization Reserve Fund – 10% of Annual Operating Revenue Budget

The Rate Stabilization Fund covers variations in water sales resulting from unusual seasons, major consumption reduction due to voluntary conservation and to adjust for net loss of revenues in the event of a catastrophic loss of imported water supplies which serves to defer rate increases due to temporary reductions in water sales. The Fund was established in January 2004. Currently the Rate Stabilization Fund is set at 10% of annual operating revenue budget, proposing to increase to 15% pending Board approval.

	FY 2016/17 Beginning Balance*	FY 2016/17 Year to Date Additions	FY 2016/17 Year to Date Total in Reserves	Target as of June 2017*
Rate Stabilization Fund	\$ 2,653,530	\$ 134,488	\$ 2,788,018	\$ 2,884,080

* Based on current 10% Target

Capital Reserve Fund - \$1,000,000

The Capital Reserve Fund is to cover unexpected and unplanned infrastructure and replacement repairs not included in the budget. The Fund was established in November 2013 to reach the target by June 2017. Currently the Capital Reserve Fund is set at a flat amount of \$1,000,000, proposing to increase to \$6,000,000 which is the average annual CIP pending Board approval.

	FY 2016/17 Beginning Balance	FY 2016/17 Estimated Additions	FY 2016/17 Estimated Use of Reserves	FY 2016/17 Year to Date Total in Fund
Capital Reserve Fund	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000

Emergency Reserve Fund - \$1,000,000

The Emergency Reserve Fund is to cover emergency repairs due to unforeseen natural disasters such as earthquake, fire, etc. The Emergency Fund would assist to cover immediate repairs to restore SCWD's operations for continued water deliver to its customers. The fund was established in May 2015 to distinguish it from the Capital Reserve Fund to be fully funded by June 2016. Currently the Emergency Reserve Fund is set at a flat amount of \$1,000,000.

	FY 2016/17 Beginning Balance	FY 2016/17 Estimated Additions	FY 2016/17 Estimated Use of Reserves	FY 2016/17 Year to Date Total in Fund
Emergency Reserve Fund	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000

SCWD Fund Summary

Unrestricted Fund

The Unrestricted Fund balance is the residual net resources in excess of the Operating Expense Fund, the Rate Stabilization Fund, the Capital Reserve Fund, the Emergency Reserve Fund and the CIP Fund. The Unrestricted Fund can be used to fund future CIP, increase the existing or add new Reserve Funds and/or mitigate any future risks and ensure the Division's creditworthiness. Unrestricted amounts are available for any purposes with the Board of Director's approval. The liquidity of the Unrestricted Fund will maintain and possibly strengthen the Division's credit rating.

	FY 2016/17 Beginning Balance	FY 2016/17 Estimated Additions	FY 2016/17 Estimated Use of Reserves	FY 2016/17 Year to Date Total in Fund
Unrestricted Fund	\$ 18,668,416	\$ -	\$ 4,163,969	\$ 14,504,447

Capital Project Funds

FY 2016/17 Capital Improvement Program (CIP) is funded through the Capital Project Fund including \$1,491,500 of Expansion Projects which will be transferred to the Expansion Fund at project completion. The Capital Project Fund and Expansion Fund cover 100% of identified projects in the FY 2016/17 Budget.

	FY 2016/17 Beginning Balance	FY 2016/17 Estimated Additions	FY 2016/17 Estimated Use of Reserves	FY 2016/17 Year End Total in Fund
Capital Project Fund from Operating Revenues	\$ -	\$ 6,831,200	\$ 5,794,393	\$ 1,036,807

Santa Clarita Water Division
Cash and Investment Summary
As of January 31, 2017

Retail Division*	Current Value	Percent of Total	Maximum Concentration Allowed	Average Remaining Life Days	Weighted Avg. Yield
Retail Division Cash and Sweep	\$ 4,345,299	10.2%	n/a		0.40%
Wells Fargo Government I 1751 MMF	2,608,754	6.1%	10%		0.40%
FNMA Bond	3,480,980	8.1%	100%		1.45%
FFCB Bond	2,975,174	6.9%	100%		1.00%
FHLB Bond	3,463,388	8.1%	100%		1.59%
Wells Fargo Bank Note	996,048	2.3%	100%		1.75%
CDARS	2,097,995	4.9%	n/a	2	1.20%
LAIF	13,293,861	31.1%	State Max		0.68%
Wells Fargo Certificates of Deposit	9,547,343	22.3%	30%	581	1.46%
Total	\$ 42,808,842	100.0%			
Total Cash and Investment**	\$ 42,808,842	100.0%			

* See SCWD Portfolio on next page for detailed descriptions.

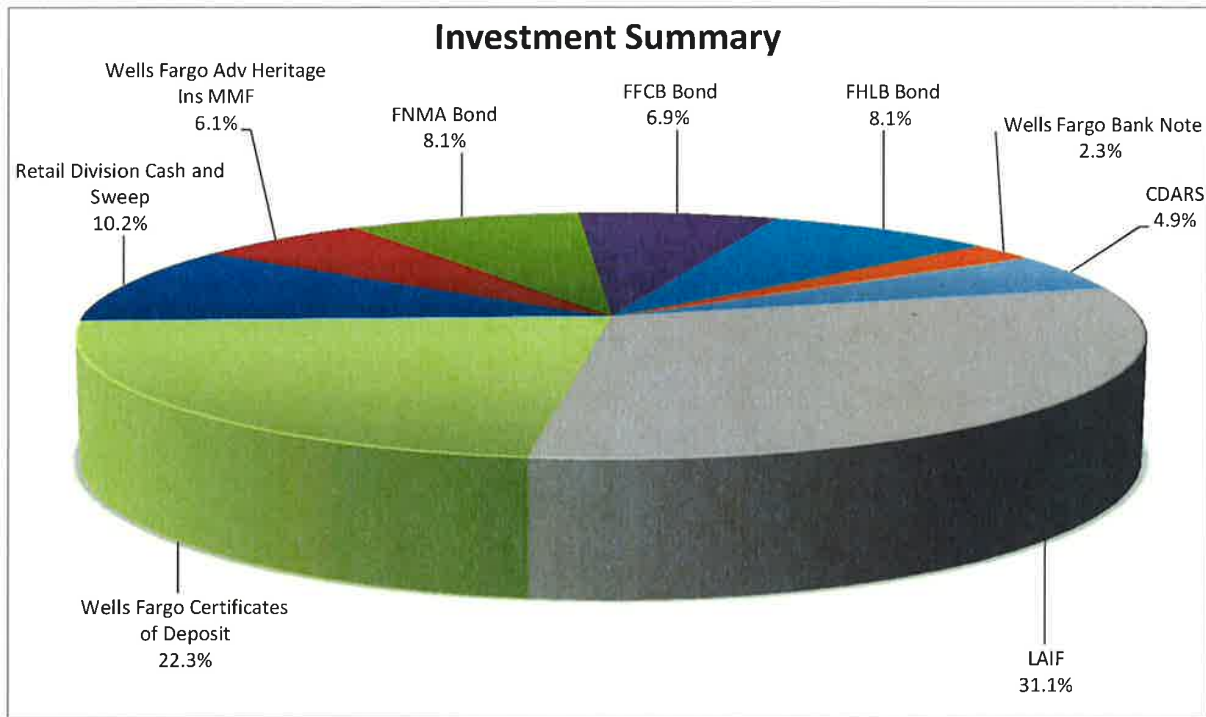
** Total for Retail Division includes \$3,390,386 in refundable Developer Deposits.

Keith Abercrombie

Keith Abercrombie
Retail Manager

Elizabeth Ooms-Graziano

Elizabeth Ooms-Graziano
Retail Administrative Officer



SANTA CLARITA WATER DIVISION
As of January 31, 2017

Description	Rate	Yield	Market Value
Retail Division Cash and Sweep (Cash in Bank)	0.01%	0.01%	\$ 4,345,299
Local Agency Investment Fund (LAIF)	0.68%	0.68%	13,293,861
Wells Fargo Government I 1751 Money Market Fund (MMF)	0.40%	0.40%	2,608,754
			\$ 20,247,914

Description	Par	Rate	Yield	Purchase Date	Maturity Date	Life Days	Remaining Days	Average Interest	Market Value
Federal Government Agency Investment Portfolio									
Fannie Mae* (FNMA)	500,000	1.05%	1.05%	06/13/14	05/15/18	1,432	499	5,250	497,836
Federal Farm Credit Bank* (FFCB)	1,000,000	0.82%	0.82%	07/05/16	07/05/18	730	550	8,200	994,752
Federal Farm Credit Bank* (FFCB)	1,000,000	1.03%	1.03%	07/05/16	04/05/19	1,006	826	10,300	992,847
Federal Farm Credit Bank* (FFCB)	1,000,000	1.14%	1.14%	07/07/16	10/07/19	1,191	1,013	11,400	987,575
Fannie Mae* (FNMA)	1,000,000	1.30%	1.30%	05/25/16	11/25/19	1,288	1,062	13,000	991,564
Fannie Mae* (FNMA)	1,000,000	1.50%	1.50%	12/16/16	03/16/20	1,189	1,143	15,000	994,623
Federal Home Loan Bank* (FHLB)	2,000,000	1.75%	1.75%	01/30/17	07/30/20	1,278	1,277	35,000	1,999,368
Fannie Mae* (FNMA)	1,000,000	1.75%	1.75%	12/28/16	09/28/20	1,374	1,340	17,500	996,957
Federal Home Loan Bank* (FHLB)	1,500,000	1.38%	1.38%	07/13/16	10/13/20	1,556	1,384	20,625	1,464,020
	\$ 10,000,000					11044	9094	\$ 136,275	\$ 9,919,542

Description	Par	Rate	Yield	Purchase Date	Maturity Date	Life Days	Remaining Days	Average Interest	Market Value
Wells Fargo Bank Note	\$ 1,000,000	1.75%	1.75%	12/9/2016	5/24/2019	898	845	\$ 17,500	\$ 996,048
	\$ 1,000,000					898	845	\$ 17,500	\$ 996,048

Description	Par	Rate	Yield	Purchase Date	Maturity Date	Life Days	Remaining Days	Average Interest	Market Value
Certificate of Deposit Account Registry Service (CDARS)	\$ 2,000,000	1.20%	1.20%	2/5/2015	2/2/2017	728	33	\$ 24,000	\$ 2,097,995
	\$ 2,000,000					728	33	\$ 24,000	\$ 2,097,995

Description	Par	Rate	Yield	Purchase Date	Maturity Date	Life Days	Remaining Days	Average Interest	Market Value
Wells Fargo Certificates of Deposit									
Washington Trust	250,000	0.80%	0.80%	02/19/14	02/21/17	1097	21	2,000	250,085
Customers Bank	250,000	0.80%	0.80%	02/16/14	02/27/17	1096	27	2,000	250,052
Crossfirst Bank	250,000	0.80%	0.80%	02/28/14	02/28/17	1091	28	2,000	250,059
Synovus Bank	250,000	0.85%	0.85%	03/05/14	03/06/17	1090	33	2,125	250,077
First Premier Bank	250,000	0.80%	0.80%	03/07/14	03/07/17	1088	34	2,000	250,067
Comenity Capital Bank	250,000	1.10%	1.10%	10/28/13	04/28/17	1279	88	2,750	250,276
Ally Bank	250,000	1.15%	1.15%	10/16/14	10/16/17	1096	258	2,875	250,789
American Express Bank	250,000	1.45%	1.45%	10/16/14	10/16/17	1096	258	3,625	250,805
Iberia Bank	250,000	1.20%	1.20%	12/04/14	12/04/17	1095	307	3,000	250,653
American City Bank	250,000	1.10%	1.10%	12/09/14	12/11/17	1098	314	2,750	250,403
Bank of North Carolina	250,000	1.15%	1.15%	12/31/15	12/29/17	732	332	2,875	250,773
BMO Harris Bank NA	250,000	1.20%	1.20%	02/14/16	02/02/18	730	367	3,000	250,650
Wells Fargo Bank Interest	250,000	1.15%	1.15%	02/12/16	02/12/18	732	377	2,875	250,664
GE Capital Retail	250,000	1.50%	1.50%	03/21/14	03/21/18	1431	385	3,750	251,219
Medallion Bank	250,000	1.25%	1.25%	03/28/14	03/28/18	1427	392	3,125	250,514
State Bank of India	250,000	1.15%	1.15%	05/14/13	05/14/18	1825	469	2,875	250,936
Wex Bank	250,000	1.20%	1.20%	12/06/16	06/08/18	547	493	3,000	250,203
Flushing Bank	250,000	1.55%	1.55%	12/12/14	06/12/18	1278	497	3,875	250,972
Crescent Bank	250,000	1.50%	1.50%	02/28/14	08/18/18	1642	575	3,750	252,177
Compass Bank	250,000	1.95%	1.95%	09/04/13	09/04/18	1829	611	4,875	252,852
GE Capital Bank	250,000	1.90%	1.90%	10/17/14	10/17/18	1461	624	4,750	251,673
Republic Bank & Trust	250,000	1.80%	1.80%	10/22/14	10/22/18	1461	629	4,500	251,584
First Sentry Bank	250,000	2.05%	2.05%	10/24/14	10/24/18	1460	631	5,125	251,594

SANTA CLARITA WATER DIVISION
As of January 31, 2017

<u>Description</u>	<u>Par</u>	<u>Rate</u>	<u>Yield</u>	<u>Purchase Date</u>	<u>Maturity Date</u>	<u>Life Days</u>	<u>Remaining Days</u>	<u>Average Interest</u>	<u>Market Value</u>
<u>Wells Fargo Certificates of Deposit</u>									
Investors Bank	250,000	1.35%	1.35%	12/16/16	12/17/18	732	685	3,375	250,147
Enerbank	250,000	1.70%	1.70%	12/18/14	12/18/18	1461	686	4,250	251,768
Third Federal Savings & Loan	250,000	1.65%	1.65%	03/28/14	12/28/18	1705	667	4,125	252,783
Sallie Mae Bank Interest	250,000	1.45%	1.45%	02/03/16	02/04/19	1098	734	3,625	251,575
Barclays/Delaware Bank	250,000	1.95%	1.95%	05/13/14	05/13/19	1660	832	4,875	253,207
Private Bank & Trust Co Chicago	250,000	1.10%	1.10%	05/20/16	05/20/19	1095	839	2,750	249,549
BMW Bank NY	250,000	1.95%	1.95%	06/20/14	06/20/19	2517	913	4,875	253,310
Discover Bank	250,000	2.00%	2.00%	07/02/14	07/02/19	1825	881	5,000	253,321
Goldman Sachs	250,000	2.05%	2.05%	07/02/14	07/02/19	1825	881	5,125	253,080
Centennial Bank Conway	250,000	1.20%	1.20%	05/20/16	11/20/19	1279	1,023	3,000	249,564
Everbank/Jacksonville FL	250,000	1.45%	1.45%	12/09/16	12/09/19	1095	1,042	3,625	249,637
American Exp Centurion	250,000	2.20%	2.20%	12/11/14	12/11/19	1826	1,044	5,500	254,086
Capital One Bank, NA	250,000	2.30%	2.30%	07/23/15	07/29/20	1825	1,274	5,750	254,804
Capital One Bank USA, NA	250,000	1.85%	1.85%	12/07/16	12/07/20	1460	1,405	4,625	250,519
Mercantil Commercebank	250,000	1.90%	1.90%	12/16/16	12/16/20	1460	1,414	4,750	250,916
	<u>\$ 9,500,000</u>					<u>50544</u>	<u>22070</u>	<u>\$ 138,750</u>	<u>\$ 9,547,343</u>

SCWD Total Cash and Investments

\$ 42,808,842

* Callable

SCWD Detail Cash Report for Capital Projects

Capital Expenditures- from Operating Revenues

<u>Project #</u>	<u>Project Name</u>	<u>Date</u>	<u>Vendor</u>	<u>Amount</u>
09-703	3.25 MG Placerita Tank	01/11/2017	CIVILTEC ENGINEERING INC.	\$602.50
		01/18/2017	BEST BEST & KRIEGER LLP	\$110.00
		01/18/2017	KANOWSKY & ASSOCIATES	\$2,500.50
		01/18/2017	RINCON CONSULTANTS, INC.	\$1,950.00
			Payroll and Benefits	<u>\$578.06</u>
			\$5,741.06	
S12-707	Whites Canyon Booster	01/11/2017	RICK FRANKLIN CONSTRUCTION, INC	\$3,475.00
S15-703	Clark Well	01/18/2017	A V EQUIPMENT RENTAL INC	\$430.25
		01/25/2017	HACH COMPANY	\$6,027.81
			Payroll and Benefits	<u>\$9,454.73</u>
			\$15,912.79	
S15-714	Placerita Booster Station - SC-12	01/11/2017	CIVILTEC ENGINEERING INC.	\$10,482.50
			Payroll and Benefits	<u>\$254.65</u>
				\$10,737.15
S15-717	Placerita Tank No. 2 Interior Coating Replacement/Retrofit	01/25/2017	FEDEX	\$20.62
			Payroll and Benefits	<u>\$827.88</u>
				\$848.50
S15-725	Facility Video Surveillance	01/11/2017	NORTHERN DIGITAL INC	\$1,647.50
S16-705	Booster Allowance FY 2016/17	01/10/2017	HD SUPPLY WATERWORKS LTD	\$6,049.51
		01/11/2017	WRIGHT'S SUPPLY INC.	<u>\$2,085.53</u>
				\$8,135.04
S16-708	Mesa Bridge and Tank Road	01/11/2017	STAATS CONSTRUCTION INC.	\$28,309.00
		01/11/2017	STAATS CONSTRUCTION INC. - Retention	<u>-\$1,415.45</u>
				\$26,893.55
S16-709	Dean Tank No. 2 Interior Coating Replacement/Retrofit	01/25/2017	FEDEX	\$16.37
			Payroll and Benefits	<u>\$590.09</u>
				\$606.46
S16-710	Earthquake Valve Retrofit	01/11/2017	MESA ENGINEERING	\$19,907.70
		01/11/2017	MESA ENGINEERING - Retention	<u>-\$995.39</u>
				\$18,912.31
S16-719	Asphalt Replacement/Repair	01/11/2017	MESA ENGINEERING	\$20,401.25
		01/11/2017	MESA ENGINEERING - Retention	<u>-\$1,020.06</u>
		01/18/2017	MESA ENGINEERING	<u>\$4,545.77</u>
				\$23,926.96
			Total	\$116,836.32

SCWD Accounts Payable Summary and Disbursements to Consultants Jan 1, 2017 - Jan 31, 2017

Disbursements \$10,000 - \$25,000							
Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount		
88635	CIVILTEC ENGINEERING INC.	01/11/2017	COMPANY FUNDED PROJECTS	S15714	\$10,482.50		
88647	MESA ENGINEERING	01/11/2017	COMPANY FUNDED PROJECTS	S16710	\$19,907.70		
88647	MESA ENGINEERING	01/11/2017	COMPANY FUNDED PROJECTS	S16719	\$20,401.25		
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	PUR SVCS	\$15,605.70		
88686	MESA ENGINEERING	01/18/2017	DEVELOPER FUNDED PROJECTS	S14602	\$11,660.00		
88702	TEBO ENVIRONMENTAL CONSULTING, INC.	01/18/2017	BILLED PROJECTS	S16909	\$10,400.00		
88712	ARMORCAST PRODUCTS COMPANY	01/25/2017	ENTERPRISE FUND (SCWD)	1" ARMORCAST T.R. LID	\$13,445.85		
88724	INFOSEND, INC.	01/25/2017	CUSTOMER SERVICE OPER.	DEC PSTGE	\$10,719.15		
							\$112,622.15

Disbursements over \$25,000							
Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount		
88633	CASTAIC LAKE WATER AGENCY	01/11/2017	SOURCE OF SUPPLY OPER.	DEC FIXED	\$521,167.10		
88633	CASTAIC LAKE WATER AGENCY	01/11/2017	SOURCE OF SUPPLY OPER.	DEC SAUGUS	\$41,750.00		
88633	CASTAIC LAKE WATER AGENCY	01/11/2017	SOURCE OF SUPPLY OPER.	DEC VARIABLE	\$230,854.66		
88656	STAATS CONSTRUCTION INC.	01/11/2017	COMPANY FUNDED PROJECTS	S16708	\$28,309.00		
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	DEC INS	\$60,333.82		
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	DEC SH EMP	\$65,420.53		
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ENTERPRISE FUND (SCWD)	DEC P/R	\$632,526.97		
							\$1,580,362.08

Disbursements to Consultants PROFESSIONAL SERVICES-LEGAL							
Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount		
88669	BEST BEST & KRIEGER LLP	01/18/2017	ADMINISTRATIVE OPER.	S10808	\$330.00		
88669	BEST BEST & KRIEGER LLP	01/18/2017	ADMINISTRATIVE OPER.	S10808	\$5,037.50		
88669	BEST BEST & KRIEGER LLP	01/18/2017	ADMINISTRATIVE OPER.	S16804	\$110.00		
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	S16804	\$101.20		
88689	NOSSAMAN LLP	01/18/2017	ADMINISTRATIVE OPER.	98806	\$3,324.38		
							\$8,903.08

PROFESSIONAL SERVICES-OTHER							
Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount		
88660	VALENCIA WATER COMPANY	01/11/2017	ADMINISTRATIVE OPER.	S16808	\$766.69		
88731	NEWHALL COUNTY WATER DIST.	01/25/2017	CONSERVATION	S16810	\$959.00		
							\$1,725.69

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

CUSTOMER REFUNDS

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Amount
87546				***VOIDED CHECK***	-\$406.91
88494				***VOIDED CHECK***	-\$765.79
88582				***VOIDED CHECK***	-\$120.00
88711	ALVARO AVILA	01/25/2017	ENTERPRISE FUND (SCWD)	REF 18702 DELIGHT	\$41.93
88714	CHRIS WAGNER	01/25/2017	ENTERPRISE FUND (SCWD)	REF 16618 NEARVIEW	\$263.57
88718	ERICKA TCHEUMANI	01/25/2017	ENTERPRISE FUND (SCWD)	REF 28409 WINTERDALE	\$20.00
88722	HEARTSIDE COMMUNITIES	01/25/2017	ENTERPRISE FUND (SCWD)	REF HYD METER	\$675.08
88723	HENKELS & MCCOY INC	01/25/2017	ENTERPRISE FUND (SCWD)	REF HYDRANT METER	\$805.32
88726	JOHN ROCKNOWSKI	01/25/2017	ENTERPRISE FUND (SCWD)	REF 26231 RAINBOW GLN	\$24.41
88727	JOYCE MUTZ	01/25/2017	ENTERPRISE FUND (SCWD)	REF 24321 WABUSKA	\$64.59
88728	LAWRENCE R. OSWALT	01/25/2017	ENTERPRISE FUND (SCWD)	REF 26119 RAINBOW GLN	\$2,905.48
88729	MARY SANTURRI	01/25/2017	ENTERPRISE FUND (SCWD)	REF 18320 OAK #212	\$65.17
88730	MESA ENGINEERING	01/25/2017	ENTERPRISE FUND (SCWD)	REF HYDRAT METER ACCT	\$330.89
88736	SUBURBICON, LLC	01/25/2017	ENTERPRISE FUND (SCWD)	REF HYD METER	\$2.43
88737	SULLY-MILLER CONTRACTING CO	01/25/2017	ENTERPRISE FUND (SCWD)	REF HYDRANT METER ACC	\$744.80
88740	TBB VALLEY INVESTMENTS	01/25/2017	ENTERPRISE FUND (SCWD)	REF 16736 BAINBURY	\$344.08
			HYDRANT METER DEPOSITS INCLUDED IN REFUNDS		-\$2,558.52
					2,436.53

DIRECTOR COMPENSATION

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88672	CATAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	STIPEND	\$1,140.75
					\$1,140.75

DUES & MEMBERSHIPS

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88659	USC FCCCHR	01/11/2017	ADMINISTRATIVE OPER.	2017 MEMBERSHIP	\$1,000.00
					\$1,000.00

EMPLOYEE EXPENSE

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88672	CATAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	SH EMP REIMB	\$384.22
88675	DEBBIE SHEARER	01/18/2017	ADMINISTRATIVE OPER.	MILEAGE	\$27.65
88746	WELLS FARGO- CALIFORNIA PIZZA KITCHEN	01/25/2017	ADMINISTRATIVE OPER.	LUNCH MEETING	\$55.59
					\$467.46

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

INSURANCE

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	RETIREE INS	\$7,658.85
					\$7,658.85

MATERIAL & SUPPLY EXPENSE

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88610	HD SUPPLY WATERWORKS LTD	01/10/2017	ENTERPRISE FUND (SCWD)	10"- 12" BOLT KITS	\$171.74
			GENERAL PLANT OPERATION	SHUT OFF TOOLS	\$803.88
				TAPE	\$400.68
88611	KIMBALL MIDWEST	01/10/2017	GENERAL PLANT OPERATION	PAINT, WASHERS	\$140.65
				SAFTEY GLASSES	\$39.11
88613	MSC INDUSTRIAL SUPPLY CO.	01/10/2017	GENERAL PLANT OPERATION	BOLT	\$47.87
				BOLT, NUTS	\$86.42
				RETN BOLT	-\$56.94
				TOOL SETS	\$384.64
88615	PHYL-MAR ELECTRICAL SUPPLY	01/10/2017	PUMPING MAINTENANCE	CONDUIT	\$147.89
				SPLICES, SHRK TUBING	\$36.08
88618	STAPLES ADVANTAGE	01/10/2017	RESERVOIRS & TANK OPER.	ELEC BOX & LID	\$234.66
88622	A V EQUIPMENT RENTAL INC	01/11/2017	ENGINEERING OPERATION	ENGR OFC SUPPLIES	\$237.46
			GENERAL PLANT OPERATION	CHISEL BAR, CAN	\$90.90
				PROPANE, CHAIN	\$40.43
				VALVE-COMPRESSOR	\$285.22
88624	ALTA FOOD CRAFT	01/11/2017	ADMINISTRATIVE OPER.	OFC KITCHEN SUPPLIES	\$207.67
			GENERAL PLANT OPERATION	WHSE KITCHEN SUPPLIES	\$170.89
88626	AMERIPRIDE SERVICES, INC.	01/11/2017	GENERAL PLANT OPERATION	JACKET	\$47.13
88627	ARC IMAGING RESOURCES	01/11/2017	ENGINEERING OPERATION	PAPER -ENGINEERING	\$277.11
88628	AUTOMATED WATER TREATMENT	01/11/2017	WATER TREATMENT OPER.	CHLORINE	\$6,272.00
88637	DITCH WITCH CENTRAL CALIFORNIA	01/11/2017	GENERAL PLANT OPERATION	NOZZLE	\$162.17
				TANK CAPS	\$103.88
88638	FASTENAL COMPANY	01/11/2017	GENERAL PLANT OPERATION	CABLE TIES	\$271.70
				MACHINE SET	\$122.47
88640	GREEN LANDSCAPE NURSERY	01/11/2017	PUMPING MAINTENANCE	PLANTS, TRELLIS	\$1,529.84
			SERVICES MAINTENANCE	SEED, SOIL, TOPPER	\$162.08
88641	HACH COMPANY	01/11/2017	WATER TREATMENT OPER.	TESTING SUPPLIES	\$829.68
88642	HD SUPPLY WATERWORKS LTD	01/11/2017	GENERAL PLANT OPERATION	LOCKS	\$254.80
			RESERVOIRS & TANK OPER.	8" VALVE	\$5,428.97
			TRANS. & DIST. OPERATION	ADPTR, SPOOL	\$1,279.41
88643	HOME DEPOT CREDIT SERVICES	01/11/2017	GENERAL PLANT OPERATION	BIT	\$21.77

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88643	HOME DEPOT CREDIT SERVICES	01/11/2017	GENERAL PLANT OPERATION	BOLTS, WASHERS	\$25.34
				BRUSH, MAGNETS	\$48.67
				CHAIN	\$21.77
				CHAIN RETN	-\$23.94
				KNOB, NUTS	\$21.35
				RETN TOOL	-\$9.78
				SOLDERING GUN, CUTTER	\$166.43
				TIE DOWNS	\$49.92
				TOOL CABINET	\$760.82
				TOOLS	\$931.46
			PUMPING MAINTENANCE	CPLG	\$3.87
				SEALANT	\$17.33
				VALVE, ADPTR	\$79.97
			SERVICES MAINTENANCE	MULCH	\$12.00
			WATER TREATMENT OPER.	ELBOWS, TUBING	\$58.54
88651	OFFICE DEPOT, INC.	01/11/2017	ADMINISTRATIVE OPER.	OFC SUPPLIES	\$153.07
88652	231 - PRAXAIR DISTRIBUTION	01/11/2017	CUSTOMER SERVICE OPER.	CS OFC SUPPLIES	\$152.58
88653	RICK FRANKLIN CONSTRUCTION, INC	01/11/2017	GENERAL PLANT OPERATION	TOOLS	\$968.20
			SERVICES MAINTENANCE	BASE	\$1,867.33
				COLDMIX & BASE	\$1,190.79
			TRANS & DISTR MAINT.	BASE	\$1,867.34
				COLDMIX & BASE	\$1,190.79
88665	AIS SPECIALTY PRODUCTS, INC.	01/18/2017	GENERAL PLANT OPERATION	GOBBLER, LUBE	\$448.61
88670	BOARD OF EQUALIZATION	01/18/2017	ADMINISTRATIVE OPER.	SALES TAX DUE	\$20.00
			CONSERVATION	S16805 SALES TAX	\$168.00
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	PURCHASES	\$2,147.18
88676	DITCH WITCH CENTRAL CALIFORNIA	01/18/2017	GENERAL PLANT OPERATION	FILTER-VAC	\$356.27
88679	GRAINGER	01/18/2017	GENERAL PLANT OPERATION	GRINDING WHEEL	\$74.22
88680	HD SUPPLY WATERWORKS LTD	01/18/2017	ENTERPRISE FUND (SCWD)	6"- 8" FLANGE BOLT KITS	\$152.69
				6" X 4" X 2 1/2" HYD-FLGD	\$4,345.91
				8" FLG X HYMAX ADAPTER	\$433.15
				PRICE CORRECT	\$0.00
88681	HOME DEPOT CREDIT SERVICES	01/18/2017	GENERAL PLANT OPERATION	TOOLS	\$228.99
			GENERAL PLANT OPERATION	VELCRO	\$3.25
			WATER TREATMENT OPER.	PIPE, ELBOW	\$46.46
88684	KIMBALL MIDWEST	01/18/2017	GENERAL PLANT OPERATION	NIPPLES	\$18.64
				SAFETY GLASSES	\$78.22

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88687	NEWHALL VALENCIA LOCK & KEY	01/18/2017	GENERAL PLANT OPERATION	KEYS	\$18.86
88690	OFFICE DEPOT, INC.	01/18/2017	ADMINISTRATIVE OPER.	KITCHEN SUPPLIES	\$245.33
			GENERAL PLANT OPERATION	OFFICE SUPPLIES	\$256.92
88691	PHYL-MAR ELECTRICAL SUPPLY	01/18/2017	PUMPING MAINTENANCE	WHISE KITCH SUPPLIES	\$152.19
				WHISE SUPPLIES	\$105.13
				MOTION SENSOR	\$106.82
				SENSOR, HUB	\$54.98
88693	PRES-TECH	01/18/2017	GENERAL PLANT OPERATION	LOCATOR	\$4,110.37
88697	ROYAL WHOLESAL ELECTRIC	01/18/2017	PUMPING MAINTENANCE	FUSES	\$439.38
88698	SCEP, INC	01/18/2017	ADMINISTRATIVE OPER.	CK FORMS	\$765.79
88704	TRAFFIC MANAGMENT, INC.	01/18/2017	PUMPING MAINTENANCE	SIGNS	\$196.20
88705	USABLUBOOK	01/18/2017	PUMPING MAINTENANCE	LOCKS	\$83.79
88707	WELLS FARGO - EDIBLE ARRANGEMENTS	01/18/2017	ADMINISTRATIVE OPER.	FRUIT GIFT	\$97.99
88707	WELLS FARGO - VARI DESK	01/18/2017	ADMINISTRATIVE OPER.	OFFICE SUPPLIES	\$594.07
88707	WELLS FARGO - A-Z STAMPS	01/18/2017	ADMINISTRATIVE OPER.	OFFICE SUPPLIES	\$65.02
88707	WELLS FARGO - A-Z STAMPS	01/18/2017	CUSTOMER SERVICE OPER.	CS OFC SUPPLIES	\$137.34
88712	ARMORCAST PRODUCTS COMPANY	01/25/2017	ENTERPRISE FUND (SCWD)	1" ARMORCAST T.R. LID	\$13,445.85
88721	HD SUPPLY WATERWORKS LTD	01/25/2017	ENTERPRISE FUND (SCWD)	1 X 2 5/8" BRASS METER CO	\$1,159.82
				1" BRASS, STREET, ELL	\$198.14
				1" INSTATTITE IPS ANGLE ME	\$702.96
				1" IPS INSTATTITE PIPE COU	\$482.42
				2" X 12" BRASS NIPPLE	\$158.47
				3" X 2" BRASS BUSHING	\$31.97
				3/4" INSTATTITE BALL ANGLE	\$1,004.09
				3/4" RUBBER METER GASKETS	\$97.88
				4" HYMAX COUPLING	\$187.44
				8" X 6", P.O. X FLG. TEE	\$185.00
				CDS 6A DIAPH KIT #2034940	\$636.84
88724	INFOSEND, INC.	01/25/2017	CUSTOMER SERVICE OPER.	DEC PSTGE	\$10,719.15
88732	PRO GROUP	01/25/2017	ENGINEERING OPERATION	PAPER-ENGINEERING	\$152.02
88741	VERIZON WIRELESS	01/25/2017	TRANS. & DIST. OPERATION	EQUIP	\$2,103.37
88745	WELLS FARGO - WALMART	01/25/2017	ADMINISTRATIVE OPER.	DRINKS	\$24.61
88745	WELLS FARGO - PAYPAL ICE-O-MATIC	01/25/2017	GENERAL PLANT OPERATION	PART FOR ICE MACHINE	\$67.70
88745	WELLS FARGO - BEST BUY.COM	01/25/2017	TRANS. & DIST. OPERATION	PHONE ACCESSORIES	\$1,001.99
88747	WELLS FARGO- VALLARTA	01/25/2017	ADMINISTRATIVE OPER.	MEETING REFRESHMENTS	\$41.58
88747	WELLS FARGO- WALMART	01/25/2017	ADMINISTRATIVE OPER.	SUPPLIES- LUNCHEON	\$24.78
88747	WELLS FARGO- BUCA DI BEPPO	01/25/2017	ADMINISTRATIVE OPER.	YR END LUNCHEON	\$1,862.97
					\$80,026.93

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

MISCELLANEOUS OPERATING EXPENSE

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88634	CITY OF SANTA CLARITA	01/11/2017	SERVICES MAINTENANCE	NOV PERMITS	\$162.00
88677	ENTERPRISE FM TRUST	01/18/2017	TRANS & DISTR MAINT.	NOV PERMITS	\$275.00
88748	CITY OF SANTA CLARITA	01/27/2017	GENERAL PLANT OPERATION	DMV RENEWAL	\$327.00
			ENGINEERING OPERATION	S15813	\$692.20
					\$1,456.20

OPEB

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ENTERPRISE FUND (SCWD)	DEC P/R	\$52,172.53
					\$52,172.53

OUTSIDE SERVICES

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88608	CONCEPTNET	01/10/2017	CONSERVATION	S16805	\$63.75
88609	DAN'S WELDING SERVICE	01/10/2017	PUMPING MAINTENANCE	MAINT- S. CLARA	\$2,779.31
88612	MARI-CO MAIL SERVICE	01/10/2017	ADMINISTRATIVE OPER.	DEC SVC	\$300.00
88620	THE VERTICAL FACTORY	01/10/2017	ADMINISTRATIVE OPER.	BAL DUE	\$1,908.10
88623	A V PARTY RENTAL, INC	01/11/2017	ADMINISTRATIVE OPER.	HEATER RENTAL	\$415.00
88625	AMERICAN BUSINESS MACHINES	01/11/2017	ENGINEERING OPERATION	DEC USAGE	\$237.40
88626	AMERIPRIDE SERVICES, INC.	01/11/2017	ADMINISTRATIVE OPER.	DEC MATS	\$185.10
88627	ARC IMAGING RESOURCES	01/11/2017	ENGINEERING OPERATION	DEC	\$151.51
				NOV	\$151.51
88630	BAY ALARM COMPANY	01/11/2017	ADMINISTRATIVE OPER.	JAN	\$62.00
88635	CIVILTEC ENGINEERING INC.	01/11/2017	ENGINEERING OPERATION	06812	\$7,020.00
88644	LUCKY'S TWO WAY RADIO	01/11/2017	ADMINISTRATIVE OPER.	FORESTRY FEES	\$42.75
88645	PATRICIA MC CLURE	01/11/2017	CUSTOMER SERVICE OPER.	DEC SUPPORT	\$2,007.50
88649	MRS GREENJEANS	01/11/2017	ADMINISTRATIVE OPER.	DEC SVC	\$125.00
88650	NORTHERN DIGITAL INC	01/11/2017	PUMPING MAINTENANCE	T & M-SAND CYN B	\$692.50
			PUMPING OPERATION	INSTL TRANSMTR	\$692.50
				T & M-SCADA	\$375.00
88653	RICK FRANKLIN CONSTRUCTION, INC	01/11/2017	SERVICES MAINTENANCE	HAUL & DUMP FEES	\$684.75
			TRANS & DISTR MAINT.	HAUL & DUMP FEES	\$684.75
88658	UNDERGROUND SERVICE ALERT/SC	01/11/2017	TRANS. & DIST. OPERATION	DEC SVC	\$117.00
88661	WESTERN MUNICIPAL WATER DIST.	01/11/2017	CONSERVATION	S16805	\$90.00
88664	A V EQUIPMENT RENTAL INC	01/18/2017	PUMPING MAINTENANCE	LOADER RENTAL	\$1,060.00

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88666	AMERICAN BUSINESS MACHINES	01/18/2017	ADMINISTRATIVE OPER.	TO 2/14	\$641.88
88667	ARC IMAGING RESOURCES	01/18/2017	ENGINEERING OPERATION	JAN + USAGE	\$689.63
88668	AROUND THE CLOCK	01/18/2017	ADMINISTRATIVE OPER.	JAN + ADD'L	\$1,087.52
88671	BURRTEC WASTE INDUSTRIES	01/18/2017	GENERAL PLANT OPERATION	JAN SVC	\$81.38
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	LIC RENEW DOC	\$249.99
				MAINT	\$3,070.14
				PUR SVCS	\$15,605.70
			GENERAL PLANT OPERATION	EDUC REIMB	\$3,570.00
			TRANS & DISTR MAINT.	WHSE MAINT	\$688.40
				WHSE PEST	\$74.00
88673	COPPER EAGLE	01/18/2017	ENTERPRISE FUND (SCWD)	DEC SVC	\$100.00
88673	COPPER EAGLE	01/18/2017	ADMINISTRATIVE OPER.	DEC SVC	\$100.00
88677	ENTERPRISE FM TRUST	01/18/2017	ADMINISTRATIVE OPER.	JAN LEASE	\$1,196.29
				RENEWAL FEE	\$20.00
88678	FIELDMAN, ROLAPP & ASSOCIATES	01/18/2017	ADMINISTRATIVE OPER.	SVC TO NOV 16	\$377.50
88682	IRON MOUNTAIN	01/18/2017	ADMINISTRATIVE OPER.	JAN SVC	\$874.13
88688	NORTHERN DIGITAL INC	01/18/2017	PUMPING MAINTENANCE	T & M SCADA	\$1,345.00
88694	RICK FRANKLIN CONSTRUCTION, INC	01/18/2017	SERVICES MAINTENANCE	CONC REPAIRS	\$4,573.00
			TRANS & DISTR MAINT.	CONC REPAIRS	\$2,680.00
88696	RMC SOLUTIONS	01/18/2017	ADMINISTRATIVE OPER.	DEC SVC	\$1,100.00
88700	SOLARBEE/MEDORA CORPORATION	01/18/2017	WATER TREATMENT OPER.	4TH OF 2ND YR	\$9,776.69
88701	SWRCB-DRINKING WATER OP CERT PROG	01/18/2017	GENERAL PLANT OPERATION	T1 RENEW STEVESON	\$55.00
88706	WASTE MANAGEMENT-BLUE BARREL	01/18/2017	GENERAL PLANT OPERATION	DEC SVC	\$865.31
88708	XEROX CORPORATION	01/18/2017	ENGINEERING OPERATION	DEC	\$123.65
88715	CONCEPTNET	01/25/2017	CUSTOMER SERVICE OPER.	UPD RATES	\$42.50
88721	HD SUPPLY WATERWORKS LTD	01/25/2017	PUMPING MAINTENANCE	SHIPPING	\$53.04
88724	INFOSEND, INC.	01/25/2017	CUSTOMER SERVICE OPER.	DEC BILLING	\$3,415.87
				DEC EBILLING FEE	\$168.53
88725	ISCO MACHINERY, INC.	01/25/2017	PUMPING MAINTENANCE	ROLLER RENT	\$954.00
				WATER TRK RENT	\$1,020.00
88738	SWRCB-DRINKING WATER OP CERT PROG	01/25/2017	GENERAL PLANT OPERATION	D5 RENEW-POINTIOUS	\$105.00
88739	SWRCB-DRINKING WATER OP CERT PROG	01/25/2017	GENERAL PLANT OPERATION	T2 RENEW HITCHEN	\$60.00
88745	WELLS FARGO - USPS	01/25/2017	WATER QUALITY OPERATION	MAIL REPORTS	\$23.70
88747	WELLS FARGO - VCN LA COUNTY REGISTRAR/RECORDER	01/25/2017	ADMINISTRATIVE OPER.	RECORD CERT NOTARY	\$42.75
	WELLS FARGO QUARTERLY BANK PROCESSING FEES		ADMINISTRATIVE OPER.		\$17,652.47
					\$92,328.50

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

PAYROLL-REGULAR

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ENTERPRISE FUND (SCWD)	DEC P/R	\$466,562.52
					\$466,562.52

PAYROLL- OVERTIME AND ON-CALL

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ENTERPRISE FUND (SCWD)	DEC P/R	\$13,620.03
					\$13,620.03

PAYROLL- TAXES

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ENTERPRISE FUND (SCWD)	DEC P/R	\$7,386.28
					\$7,386.28

PENSION AND BENEFITS

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	DEC INS	\$60,333.82
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	DEC IN-LIEU	\$16,715.00
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	DEC DEFERRED COMP	\$12,492.07
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	DEC PERS RETIREMENT	\$63,578.54
					\$153,119.43

POWER FOR PUMPING

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88617	SO. CALIFORNIA EDISON CO.	01/10/2017	PUMPING OPERATION		\$5,178.04
88655	SO. CALIFORNIA EDISON CO.	01/11/2017	PUMPING OPERATION		\$1,594.66
88699	SO. CALIFORNIA EDISON CO.	01/18/2017	PUMPING OPERATION		\$1,249.11
88734	SO. CALIFORNIA EDISON CO.	01/25/2017	PUMPING OPERATION		\$3,104.72
					\$11,126.53

PROFESSIONAL SERVICES-LEGAL

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88669	BEST BEST & KRIEGER LLP	01/18/2017	ADMINISTRATIVE OPER.	S10808	\$330.00
					\$5,037.50
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	S16804	\$110.00
88689	NOSSAMAN LLP	01/18/2017	ADMINISTRATIVE OPER.	S16804	\$101.20
				98806	\$3,324.38
					\$8,903.08

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

PROFESSIONAL SERVICES-OTHER

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88660	VALENCIA WATER COMPANY	01/11/2017	ADMINISTRATIVE OPER.	S16808	\$766.69
88731	NEWHALL COUNTY WATER DIST.	01/25/2017	CONSERVATION	S16810	\$959.00
					\$1,725.69

PURCHASED WATER

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88633	CASTAIC LAKE WATER AGENCY	01/11/2017	SOURCE OF SUPPLY OPER.	DEC FIXED	\$521,167.10
				DEC SAUGUS	\$41,750.00
				DEC VARIABLE	\$230,854.66
					\$793,771.76

RENTAL EXPENSE

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88644	LUCKY'S TWO WAY RADIO	01/11/2017	ADMINISTRATIVE OPER.	TO 3/31	\$990.00
88716	DESIGN SPACE MODULAR BUILDINGS	01/25/2017	GENERAL PLANT OPERATION	OPS	\$996.22
					\$1,986.22

SCWD CAPITAL PROJECTS

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88610	HD SUPPLY WATERWORKS LTD	01/10/2017	COMPANY FUNDED PROJECTS	S16705-METER	\$6,049.51
88635	CIVILTEC ENGINEERING INC.	01/11/2017	COMPANY FUNDED PROJECTS	09703	\$602.50
88647	MESA ENGINEERING	01/11/2017	COMPANY FUNDED PROJECTS	S15714	\$10,482.50
				S16710	\$19,907.70
				S16719	\$20,401.25
				S16710 RET	-\$995.39
				S16719 RET	-\$1,020.06
88650	NORTHERN DIGITAL INC	01/11/2017	COMPANY FUNDED PROJECTS	S15725	\$1,647.50
88653	RICK FRANKLIN CONSTRUCTION, INC	01/11/2017	COMPANY FUNDED PROJECTS	S12707	\$3,475.00
88656	STAATS CONSTRUCTION INC.	01/11/2017	COMPANY FUNDED PROJECTS	S16708	\$28,309.00
				S16708 RET	-\$1,415.45
88662	WRIGHT'S SUPPLY INC.	01/11/2017	COMPANY FUNDED PROJECTS	S16705	\$2,085.53
88664	A V EQUIPMENT RENTAL INC	01/18/2017	COMPANY FUNDED PROJECTS	S15703	\$430.25
88669	BEST BEST & KRIEGER LLP	01/18/2017	COMPANY FUNDED PROJECTS	09703	\$110.00
88683	KANOWSKY & ASSOCIATES	01/18/2017	COMPANY FUNDED PROJECTS	09703	\$2,500.50
88686	MESA ENGINEERING	01/18/2017	COMPANY FUNDED PROJECTS	S16719	\$4,545.77
88695	RINCON CONSULTANTS, INC.	01/18/2017	COMPANY FUNDED PROJECTS	09703	\$1,950.00

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88719	FEDEX	01/25/2017	COMPANY FUNDED PROJECTS	S15717	\$20.62
88719	FEDEX	01/25/2017	COMPANY FUNDED PROJECTS	S16709	\$16.37
88720	HACH COMPANY	01/25/2017	COMPANY FUNDED PROJECTS	S15703	\$6,027.81
			PAYROLL AND BENEFITS CHARGED TO COMPANY PROJECTS		\$11,705.41
					\$116,836.32

SHARED LABOR/BURDEN & BENEFITS CLWA

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	DEC SH EMP	\$65,420.53
					\$65,420.53

UNIFORMS

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88626	AMERIPRIDE SERVICES, INC.	01/11/2017	PUMPING MAINTENANCE	DEC UNIFORMS	\$81.39
			PUMPING OPERATION	DEC UNIFORMS	\$47.80
			RESERVOIRS & TANK OPER.	DEC UNIFORMS	\$166.66
			RESERVOIRS & TANKS MAINT.	DEC UNIFORMS	\$129.19
			SERVICES MAINTENANCE	DEC UNIFORMS	\$186.03
			SOURCE OF SUPPLY MAINT.	DEC UNIFORMS	\$6.46
			SOURCE OF SUPPLY OPER.	DEC UNIFORMS	\$41.34
			TRANS & DISTR MAINT.	DEC UNIFORMS	\$382.40
			WATER TREATMENT MAINT.	DEC UNIFORMS	\$25.84
			WATER TREATMENT OPER.	DEC UNIFORMS	\$224.79
					\$1,291.90

UTILITIES

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88621	A T & T	01/11/2017	ADMINISTRATIVE OPER.		\$132.85
			PUMPING OPERATION		\$227.40
88657	TELEPACIFIC COMMUNICATIONS	01/11/2017	ADMINISTRATIVE OPER.		\$695.58
88663	A T & T	01/18/2017	ADMINISTRATIVE OPER.		\$26.14
			GENERAL PLANT OPERATION		\$16.87
88672	CASTAIC LAKE WATER AGENCY	01/18/2017	ADMINISTRATIVE OPER.	A T & T	\$3,201.87
88674	DATAVO	01/18/2017	GENERAL PLANT OPERATION		\$55.44
88692	PREMIERE GLOBAL SERVICES	01/18/2017	ADMINISTRATIVE OPER.		\$9.70
88699	SO. CALIFORNIA EDISON CO.	01/18/2017	ADMINISTRATIVE OPER.	OFFICE	\$2,130.23
			GENERAL PLANT OPERATION	WHSE	\$1,646.19
88709	A T & T	01/25/2017	ADMINISTRATIVE OPER.		\$800.83

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88710	A T & T	01/25/2017	PUMPING OPERATION		\$502.00
88741	VERIZON WIRELESS	01/25/2017	ADMINISTRATIVE OPER.		\$240.00
			CUSTOMER SERVICE OPER.		\$100.00
			ENGINEERING OPERATION		\$200.00
			GENERAL PLANT OPERATION		\$2,039.14
88742	VERIZON WIRELESS	01/25/2017	TRANS. & DIST. OPERATION	10 IPADS	\$361.50
88743	VERIZON WIRELESS	01/25/2017	TRANS. & DIST. OPERATION	7 IPADS	\$266.07
					\$12,651.81

VEHICLE AND EQUIPMENT EXPENSE

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88614	NAPA AUTO & TRUCK PARTS	01/10/2017	GENERAL PLANT OPERATION	FITTING	\$18.51
88616	SCHWARTZ OIL CO	01/10/2017	GENERAL PLANT OPERATION	WIPER BLADES	\$173.96
				DIESEL	\$1,282.07
				GASOLINE	\$1,187.47
88629	AUTOMATION SHARED SVC CENTER	01/11/2017	GENERAL PLANT OPERATION	BRAKES #25	\$797.36
				OIL, FILTER #13	\$62.91
				OIL, FILTER #23	\$64.80
				OIL, FILTER #33	\$64.71
88631	CANYON MUFFLER, INC	01/11/2017	GENERAL PLANT OPERATION	NEW MUFFLER #35	\$372.50
88632	CARQUEST AUTO PARTS	01/11/2017	GENERAL PLANT OPERATION	WIPERS, OIL	\$197.00
88636	DICKINSON ENTERPRISE, INC.	01/11/2017	GENERAL PLANT OPERATION	TIRES #12	\$479.28
88636	DICKINSON ENTERPRISE, INC.	01/11/2017	GENERAL PLANT OPERATION	BRAKES #108	\$943.11
				BRAKES #12	\$1,042.54
88639	GALPIN MOTORS, INC.	01/11/2017	GENERAL PLANT OPERATION	BRAKES #7	\$1,667.12
88639	GALPIN MOTORS, INC.	01/11/2017	GENERAL PLANT OPERATION	TIRES #10	\$854.46
88648	MIKE'S TIREMAN, INC	01/11/2017	GENERAL PLANT OPERATION	TIRES #1	\$935.00
88654	SCHWARTZ OIL CO	01/11/2017	GENERAL PLANT OPERATION	GASOLINE	\$846.89
88713	CHEVRON & TEXACO CARD SERVICES	01/25/2017	GENERAL PLANT OPERATION	WASH	\$21.99
88713	CHEVRON & TEXACO CARD SERVICES	01/25/2017	GENERAL PLANT OPERATION	GAS CHG PUR	\$62.00
88717	DICKINSON ENTERPRISE, INC.	01/25/2017	GENERAL PLANT OPERATION	BRAKES, RAD #5	\$2,974.76
88717	DICKINSON ENTERPRISE, INC.	01/25/2017	GENERAL PLANT OPERATION	TIRE #27	\$114.38
88733	SCHWARTZ OIL CO	01/25/2017	GENERAL PLANT OPERATION	GASOLINE	\$1,614.22
					\$15,777.04

SCWD CHECK REGISTER Jan 1, 2017 - Jan 31, 2017

SUBTOTAL SCWD DISBURSEMENTS			\$1,908,866.89
	PAYROLL AND BENEFITS CHARGED TO COMPANY PROJECTS		-\$11,705.41
	PAYROLL AND BENEFITS CHARGED TO DEVELOPER PROJECTS		-\$27,376.19
TOTAL SCWD DISBURSEMENTS			\$1,869,785.29

DEVELOPER PROJECTS

Check Number	Vendor Name	Check Date	BudUnitTitle	Transaction Description	Transaction Amount
88619	TEJON CONSTRUCTORS, INC	01/10/2017	DEVELOPER FUNDED PROJECTS	S14614	\$2,500.00
88635	CIVILTEC ENGINEERING INC.	01/11/2017	DEVELOPER FUNDED PROJECTS	S14602	\$261.10
				S15604	\$232.50
				S16610	\$5,955.00
				S16618	\$925.00
88646	MERIDJAN CONSULTANTS LLC	01/11/2017	DEVELOPER FUNDED PROJECTS	S15604	\$3,563.75
88669	BEST BEST & KRIEGER LLP	01/18/2017	DEVELOPER FUNDED PROJECTS	S15604	\$100.00
88685	LA COUNTY DEPT. PUBLIC WORKS	01/18/2017	DEVELOPER FUNDED PROJECTS	S15611	\$185.64
88686	MESA ENGINEERING	01/18/2017	DEVELOPER FUNDED PROJECTS	S14602	\$11,660.00
			ENTERPRISE FUND (SCWD)	S14602 RET	-\$583.00
88694	RICK FRANKLIN CONSTRUCTION, INC	01/18/2017	BILLED PROJECTS	S16912	\$2,216.00
88694	RICK FRANKLIN CONSTRUCTION, INC	01/18/2017	DEVELOPER FUNDED PROJECTS	S16617	\$2,058.00
88702	TEBO ENVIRONMENTAL CONSULTING, INC.	01/18/2017	BILLED PROJECTS	S16909	\$10,400.00
88703	THE SIGNAL	01/18/2017	DEVELOPER FUNDED PROJECTS	S15604	\$490.20
88719	FEDEX	01/25/2017	DEVELOPER FUNDED PROJECTS	S13629	\$248.86
88735	STAATS CONSTRUCTION INC.	01/25/2017	DEVELOPER FUNDED PROJECTS	S15611	\$6,387.87
88744	WELLS FARGO - USPS	01/25/2017	DEVELOPER FUNDED PROJECTS	S15604	\$22.95
			PAYROLL AND BENEFITS CHARGED TO DEVELOPER PROJECTS		\$27,376.19
					\$74,000.06



Castaic Lake Water Agency Memorandum

February 8, 2017

To: Retail Operations Committee

From: Keith Abercrombie *KA*
Retail Manager

Subject: Recommend Receiving and Filing of SCWD FY 2016/17 Midyear Budget Report

SUMMARY

Attached is the Santa Clarita Water Division (SCWD) FY 2016/17 Midyear Budget Report. This report reviews the significant revenues and expenditures as of December 31, 2016 and compares the FY 2016/17 Budget to actual revenues and expenditures for the operating and capital budgets as of December 31, 2016. A summary is provided in this report and detailed information is provided in the attachments.

Revenues are higher than budgeted from increased water sales due to higher consumption for the months of October through December 2016. SCWD's revenues are based on actual customer water usage, which was 20 percent higher than budgeted consumption that took into account expectation of 28 percent water conservation mandate by the State Water Resources Control Board (SWRCB) on April 12, 2016 as compared to the same time period in 2013. SCWD's customers achieved 15 percent cumulative conservation from July 2016 through December 2016 compared to 2013 levels.

Overall, expenditures are less than budgeted in both the operating and capital budgets. This is due to active management to maintain expenditures at or below budget and also timing of expenditures and invoices. Purchased Water was below budget due to lower actual CLWA fixed cost based on the ten year rolling average than budgeted and partially offset by higher wholesale water purchases (91 percent instead of 81 percent budgeted for the first half of FY 2016/17). It is anticipated that operating expenditures will remain slightly below budget by yearend due to staff vacancies and lower outside services in the first half of the fiscal year.

DISCUSSION

Operating Revenues

Actual Operating Revenues through December 31, 2016 are \$18,170,609, which is \$2,310,924 (15 percent) higher than budgeted as of midyear (\$15,859,685). Actual Operating Revenues through December 31, 2016 are at 63 percent of the total FY 2016/17 Budget. Revenues are higher mainly due to higher than budgeted customer water usage for the months of July through December 2016. On May 18, 2016, the SWRCB adopted a new approach which is in effect through February 2017. It replaced the prior 28 percent conservation standard with a local "stress test" approach that mandates urban water suppliers self-certify to ensure at least a three year supply of water to their customers under drought conditions. On June 22, 2016, SCWD submitted its self-certification to the SWRCB. On July 13, 2016, the CLWA Board of Directors approved the SCWD Ordinance No. 44 (replacing Ordinance No. 43) as a result of the SWRCB new requirements and SCWD's self-certification. The Board of Directors also approved rescinding Resolution No. 3041 which lifted the restricted watering day schedules, although certain mandated watering restrictions are permanently in effect as outlined in Ordinance No. 44, Section 3.

Operating Expenses

Actual Operating Expenses through December 31, 2016 are \$11,906,949, which is \$1,217,109 (9 percent) lower than budgeted as of midyear (\$13,124,058). Actual Operating Expenses through December 31, 2016 are 48 percent of the total FY 2016/17 Budget. Significant categories with lower expenditures than budgeted are as follows:

- ◆ Lower Outside Services of \$748,800 due to fewer repairs, reduced need for consultants, and lower lab and SWRCB Division of Drinking Water Programs (DDW) fees in the first half of the fiscal year.
- ◆ Lower Labor and Burden and Benefits of \$354,000 due to staff vacancies.
- ◆ Lower Purchased Water costs of \$77,200 due to lower CLWA fixed cost based on the ten year rolling average than budgeted and partially offset by higher wholesale water purchases (91 percent instead of 81 percent budgeted in the first half of the fiscal year).

Capital Improvement Program and Debt-Funded Projects Forecast

The FY 2016/17 Capital Improvement Program (CIP) Budget is \$6,931,200 including carry-forward of \$100,000 for Whites Canyon Booster from FY 2015/16. Actual CIP expenditures through December 31, 2016 are \$1,189,198, which is 17 percent of the total FY 2016/17 CIP Budget of \$6,931,200.

Significant projects that will be partially deferred to FY 2016/17 are as follows:

- ◆ 3.25 MG Placerita Pressure Zone Storage, land purchase scheduled in second half of FY 2016/17 and construction deferred to FY 2017/18.
- ◆ Los Angeles Residential Community ((LARC) Water Pipeline, design scheduled in second half of FY 2016/17 and construction deferred to FY 2017/18.
- ◆ Recycled Water Pipeline, California Environmental Quality Act (CEQA) documents scheduled in second half of FY 2016/17 and design and construction deferred to FY 2017/18.

Significant projects that have started and balance of expenditures scheduled in second half of FY 2016/17 are as follows:

- ◆ Circle J Pressure Station
- ◆ Placerita Booster Station
- ◆ Dean Tank No. 2 Interior Coating Replacement/Retrofit
- ◆ Placerita No. 2 Tank Interior Coating Replacement/Retrofit
- ◆ Service Line Replacement Program FY 2016/17
- ◆ Automated Meter Reading (AMR) FY 2016/17

RECOMMENDATION

That the Retail Operations Committee recommends that the Board of Directors receive and file the SCWD FY 2016/17 Midyear Budget Report.

KA

Attachment

M65

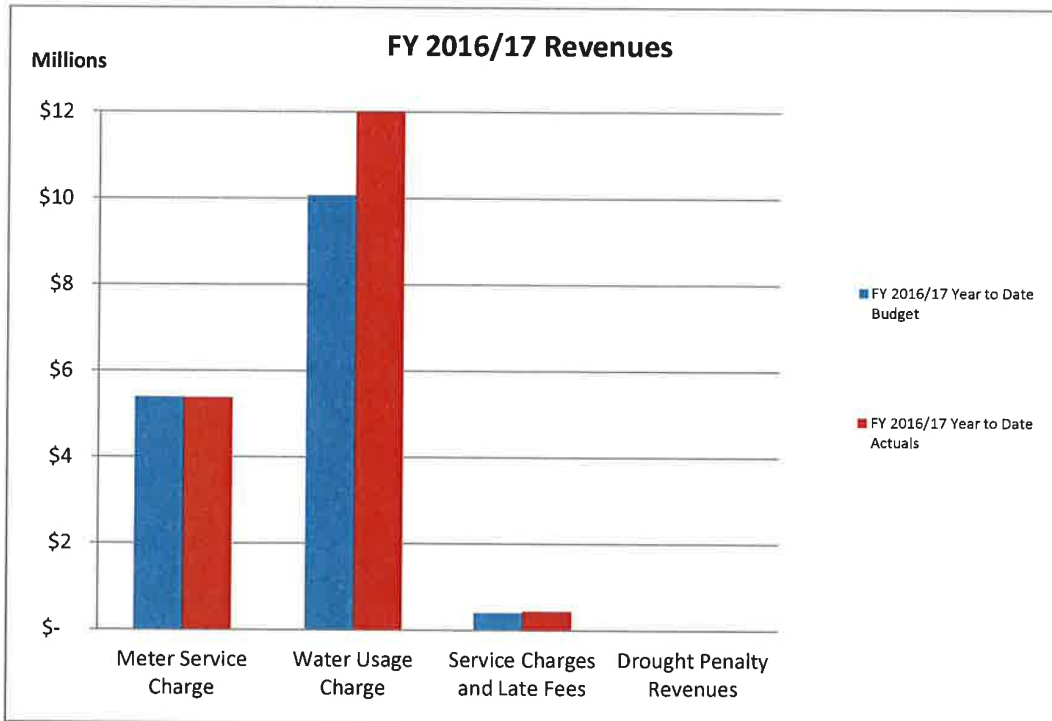
Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Financial Summary

	Budget Through 12/31/16	Actuals Through 12/31/16	Variance Over/(Under)	% Over/Under
Santa Clarita Water Division				
Total Operating Revenues	\$ 15,859,685	\$ 18,170,609	\$ 2,310,924	15%
Operating Expenditures				
Source of Supply	5,857,630	5,784,230	(73,400)	-1%
Pumping	1,416,494	1,495,097	78,603	6%
Water Treatment	600,272	479,367	(120,905)	-20%
Transmission and Distribution	2,394,892	1,956,252	(438,640)	-18%
Customer Service	516,028	454,447	(61,581)	-12%
Engineering	514,427	314,468	(199,959)	-39%
Administrative and General	1,824,315	1,423,088	(401,227)	-22%
Total Operating Expenses	13,124,058	11,906,949	(1,217,109)	-9%
Operating Income	2,735,627	6,263,660	3,528,033	129%
Non-Operating Revenue/(Expense)				
Rental Income and Other Miscellaneous Income	144,000	117,967	(26,033)	-18%
Rental Income 22722 Soledad Canyon Road Office Building	67,200	67,194	(6)	0%
Interest Earnings - SCWD Fund	118,000	164,868	46,868	40%
Interest Expense - COP Series 2010 B (Capital Projects)	(335,294)	(335,294)	-	0%
Interest Expense - Revenue Bond Series 2011 A (Retail Acquisition Repayment)	(1,069,256)	(1,069,256)	-	0%
Total Non-Operating, Net	(1,075,350)	(1,054,521)	20,829	-2%
Net Income Before Debt Principal Payment	1,660,277	5,209,139	3,548,862	214%
Principal Payment - COP Series 2010 B (Capital Projects)	-	-	-	
Principal Payment - Revenue Bond Series 2011 A (Retail Acquisition Repayment)	-	-	-	
Increase/(Decrease) to Fund Balance	1,660,277	5,209,139	3,548,862	214%
Total Revenue Requirements	<u>\$ 15,859,685</u>	<u>\$ 18,170,609</u>	<u>\$ 2,310,924</u>	<u>15%</u>

	FY 2016/17 Beginning Balance	Additions Through 12/31/16	Uses Through 12/31/16	Balance As of 12/31/16
Fund Summary				
Developer Refundable Deposit	\$ 3,781,692	\$ 1,015,078	\$ (1,332,384)	\$ 3,464,386
Expansion Fund	6,304,563	867,722	(29,807)	7,142,478
CIP Fund	-	5,439,700	(1,163,956)	4,275,744
Operating Reserve Fund	5,691,100	286,950	-	5,978,050
Rate Stabilization Reserve Fund	2,653,530	115,275	-	2,768,805
Capital Reserve Fund	1,000,000	-	-	1,000,000
Emergency Reserve Fund	1,000,000	-	-	1,000,000
Unrestricted Fund	18,668,416	-	(811,720)	17,856,696
Total Funds Available	<u>\$ 39,099,301</u>	<u>\$ 7,724,725</u>	<u>\$ (3,337,867)</u>	<u>\$43,486,159</u>

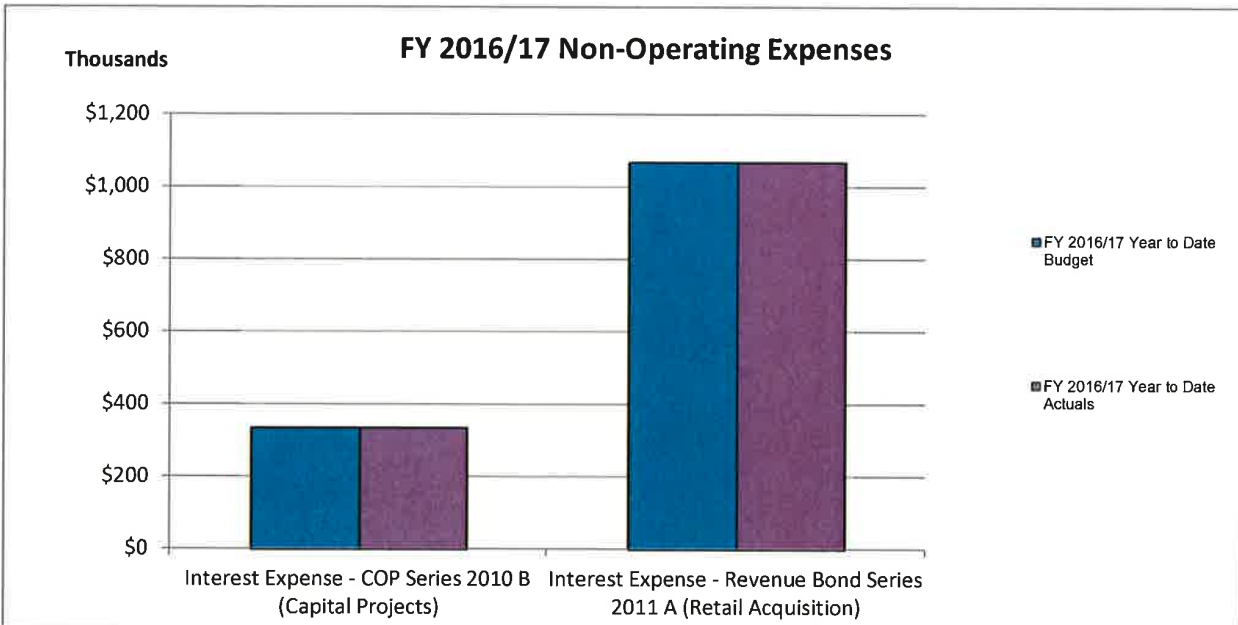
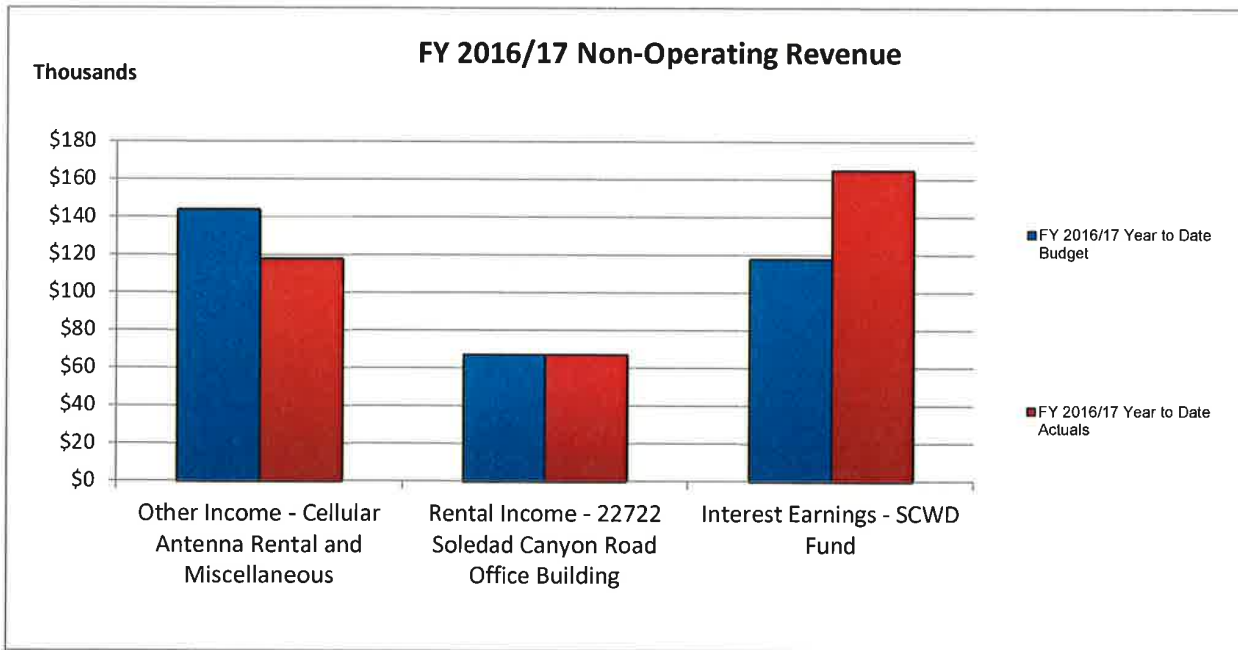
Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Operating Revenues

Operating Revenues	Budget Through 12/31/2016	Actuals Through 12/31/2016	Variance Over/(Under)	% Over/Under
Meter Service Charge	\$ 5,389,100	\$ 5,372,923	\$ (16,177)	0%
Water Usage Charge	10,063,085	12,362,960	2,299,875	23%
Service Charges and Late Fees	400,000	434,126	34,126	9%
Drought Penalty Revenues	7,500	600	(6,900)	-92%
Total Operating Revenues	\$ 15,859,685	\$ 18,170,609	\$ 2,310,924	15%



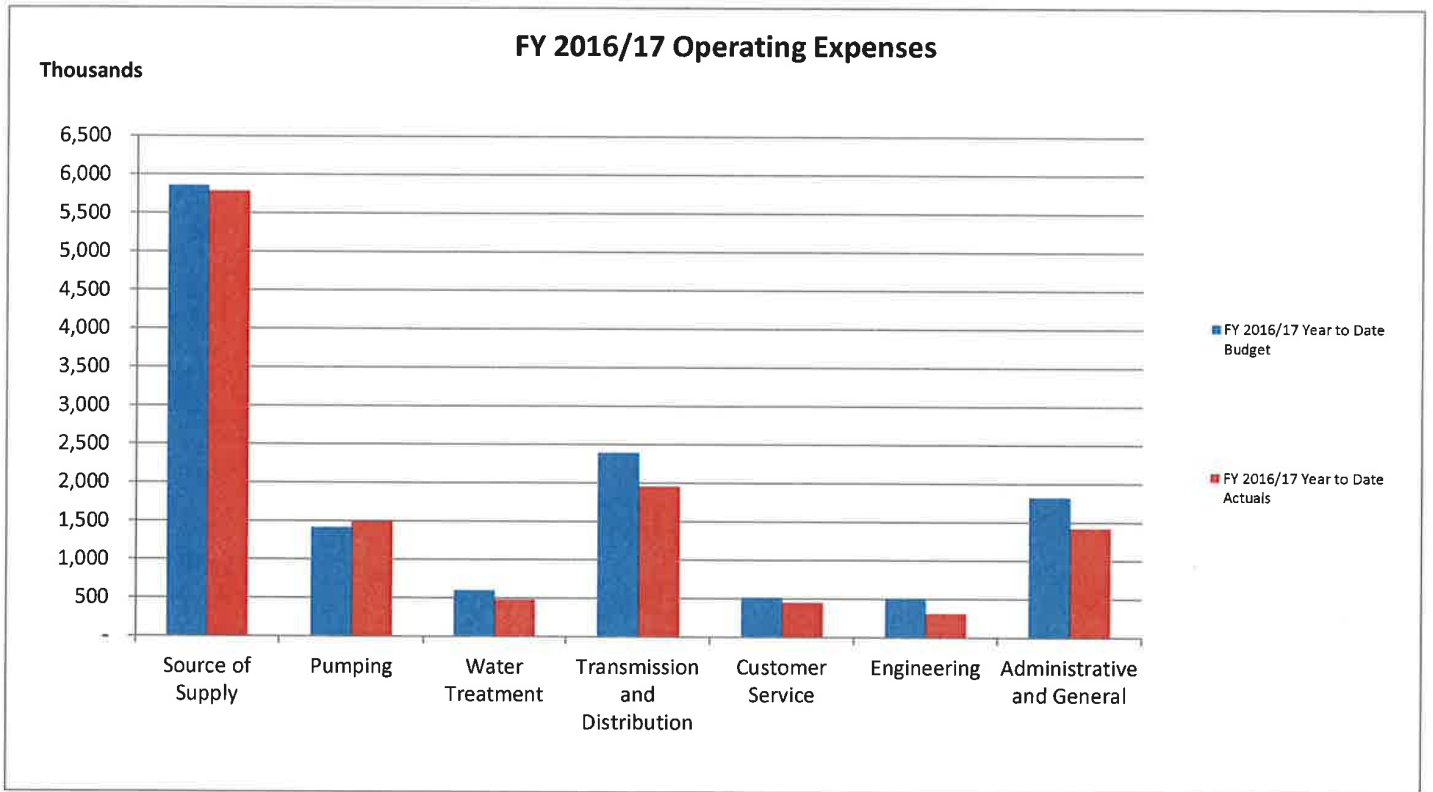
Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Non Operating Revenues/(Expenses)

Non Operating Revenues/(Expenses)	Budget Through 12/31/2016	Actuals Through 12/31/2016	Variance Over/(Under)	% Over/Under
Other Income - Cellular Antenna Rental and Miscellaneous	\$ 144,000	\$ 117,967	\$ (26,033)	-18%
Rental Income - 22722 Soledad Canyon Road Office Building	67,200	67,194	(6)	0%
Interest Earnings - SCWD Fund	118,000	164,868	46,868	40%
Interest Expense - COP Series 2010 B (Capital Projects)	(335,294)	(335,294)	-	0%
Interest Expense - Revenue Bond Series 2011 A (Retail Acquisition)	(1,069,256)	(1,069,256)	-	0%
Total Non Operating Revenues/(Expenses)	\$ (1,075,350)	\$ (1,054,521)	\$ 20,829	-2%



Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Operating Expenses

Operating Expenses	Budget Through 12/31/2016	Actuals Through 12/31/2016	Variance Over/(Under)	% Over/Under
Source of Supply	5,857,630	5,784,230	(73,400)	-1%
Pumping	1,416,494	1,495,097	78,603	6%
Water Treatment	600,272	479,367	(120,905)	-20%
Transmission and Distribution	2,394,892	1,956,252	(438,640)	-18%
Customer Service	516,028	454,447	(61,581)	-12%
Engineering	514,427	314,468	(199,959)	-39%
Administrative and General	1,824,315	1,423,088	(401,227)	-22%
Total Operating Expenditures	\$ 13,124,058	\$ 11,906,949	\$ (1,217,109)	-9%



Santa Clarita Water Division
FY 2016/17 Midyear Budget Report
Operating Expenditure Summary

	Budget Through 12/31/2016	Actuals Through 12/31/2016	% of Budget
<u>Source of Supply</u>			
Purchased Water	\$ 5,738,587	\$ 5,661,414	99%
Labor	73,472	74,454	101%
Burden and Benefits	37,850	40,254	106%
Transportation	7,248	7,870	109%
Materials and Supplies	75	-	0%
Other	398	238	60%
Total Source of Supply	\$ 5,857,630	\$ 5,784,230	99%
<u>Pumping</u>			
Power for pumping	\$ 918,000	\$ 988,140	108%
Labor	209,276	213,042	102%
Burden and Benefits	106,968	112,376	105%
Transportation	21,000	37,706	180%
Materials and Supplies	52,600	69,074	131%
Outside Services	99,000	69,744	70%
Other	9,650	5,015	52%
Total Pumping	\$ 1,416,494	\$ 1,495,097	106%
<u>Water Treatment</u>			
Chemicals	\$ 47,502	\$ 47,140	99%
Labor	208,135	193,215	93%
Burden and Benefits	106,710	99,498	93%
Transportation	25,350	24,522	97%
Materials and Supplies	38,750	20,069	52%
Outside Services	171,900	93,675	54%
Other	1,925	1,248	65%
Total Water Treatment	\$ 600,272	\$ 479,367	80%
<u>Transmission and Distribution</u>			
Labor	\$ 988,400	\$ 906,773	92%
Burden and Benefits	533,554	377,200	71%
Transportation	90,000	76,478	85%
Materials and Supplies	313,198	386,087	123%
Outside Services	408,996	163,864	40%
Other	60,744	45,850	75%
Total Transmission and Distribution	\$ 2,394,892	\$ 1,956,252	82%
<u>Customer Service</u>			
Uncollectibles	\$ 37,500	\$ 28,212	75%
Labor	172,602	180,275	104%
Burden and Benefits	96,032	104,606	109%
Transportation	-	-	
Materials and Supplies	86,100	73,243	85%
Outside Services	120,498	66,376	55%
Other	3,296	1,735	53%
Total Customer Service	\$ 516,028	\$ 454,447	88%
<u>Engineering</u>			
Labor	\$ 239,710	\$ 175,549	73%
Burden and Benefits	122,472	81,285	66%
Transportation	2,898	2,569	89%
Materials and Supplies	14,599	1,888	13%
Outside Services	121,800	45,586	37%
Other	12,948	7,591	59%
Total Engineering	\$ 514,427	\$ 314,468	61%

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Operating Expenditure Summary

	Budget Through 12/31/2016	Actuals Through 12/31/2016	% of Budget
<u>Administrative and General</u>			
Labor	\$ 414,400	\$ 396,131	96%
Burden and Benefits	202,323	203,202	100%
Shared Labor/Burden and Benefits from CLWA	321,740	309,414	96%
Transportation	3,252	45	1%
Materials and Supplies	58,398	24,222	41%
Outside Services	473,348	207,511	44%
Directors Compensation	6,000	3,863	64%
Professional Services	152,502	114,095	75%
Property, Liability and Retiree Medical Insurance	180,552	162,947	90%
Dues and Memberships	31,200	24,135	77%
Other	48,298	44,939	93%
Administrative and General Transfer Labor	(67,698)	(67,416)	100%
Total Administrative and General	\$ 1,824,315	\$ 1,423,088	78%
<u>TOTAL</u>			
Purchased Water	\$ 5,738,587	\$ 5,661,414	99%
Power for Pumping	918,000	988,140	108%
Chemicals	47,502	47,140	99%
Uncollectibles	37,500	28,212	75%
Labor	2,305,995	2,139,439	93%
Burden and Benefits	1,205,909	1,018,421	84%
Shared Labor/Burden and Benefits from CLWA	321,740	309,414	96%
Transportation	149,748	149,190	100%
Materials and Supplies	563,720	574,583	102%
Outside Services	1,395,542	646,756	46%
Property, Liability and Retiree Medical Insurance	180,552	162,947	90%
Dues and Memberships	31,200	24,135	77%
Directors Compensation	6,000	3,863	64%
Professional Services	152,502	114,095	75%
Administrative and General Transfer Labor	(67,698)	(67,416)	100%
Other	137,259	106,616	78%
Total Operating Expenditures	\$ 13,124,058	\$ 11,906,949	91%

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Source of Supply Expenditures

Source of Supply	Budget Through 12/31/16	Actuals Through 12/31/16	Variance Over/(Under)	% Over/Under
Purchased Water	\$ 5,738,587	\$ 5,661,414	\$ (77,173)	-1%
Labor	72,954	73,763	809	1%
Overtime	518	691	173	33%
Burden and Benefits	37,850	40,254	2,404	6%
Transportation	7,248	7,870	622	9%
Internal Relations	75	-	(75)	100%
Other				
Employee Expense	50	-	(50)	-100%
Uniforms	348	238	(110)	-32%
Subtotal Other	398	238	(160)	-40%
Total Source Of Supply Expense	\$ 5,857,630	\$ 5,784,230	\$ (73,400)	-1%

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Pumping Expenditures

Pumping	Budget Through 12/31/16	Actuals Through 12/31/16	Variance Over/(Under)	% Over/Under
Power For Pumping	\$ 918,000	\$ 988,140	\$ 70,140	8%
Labor	197,608	188,598	(9,010)	-5%
Overtime	11,668	24,444	12,776	109%
Burden and Benefits	106,968	112,376	5,408	5%
Transportation	21,000	37,706	16,706	80%
Materials and Supplies				
Internal Relations	100	-	(100)	
Parts and Materials	52,500	69,074	16,574	32%
Subtotal Materials and Supplies	52,600	69,074	16,474	31%
Outside Services				
Education and Seminars	-	-	-	
Temporary Personnel Services	-	-	-	100%
Outside Services and Contracting	94,998	63,672	(31,326)	-33%
Equipment Repair/Rental	4,002	6,072	2,070	52%
Subtotal Outside Services	99,000	69,744	(29,256)	-30%
Other				
Employee Expense	50	-	(50)	-100%
Utilities- SCADA and SWRCB Fees	8,700	4,371	(4,329)	-50%
Uniforms	900	644	(256)	-28%
Subtotal Other	9,650	5,015	(4,635)	-48%
Total Pumping Expense	\$ 1,416,494	\$ 1,495,097	\$ 78,603	6%

Changes of more than 10% and \$20,000

- A. Outside Services and Contracting is under budget by \$31,326 or 33% due to the timing of weed abatement, powder coating and some electrical and SCADA work.

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Water Treatment Expenditures

Water Treatment	Budget Through 12/31/16	Actuals Through 12/31/16	Variance Over/(Under)	% Over/Under
Chemicals	\$ 47,502	\$ 47,140	\$ (362)	-1%
Labor	197,245	187,867	(9,378)	-5%
Overtime	10,890	5,348	(5,542)	-51%
Burden and Benefits	106,710	99,498	(7,212)	-7%
Transportation	25,350	24,522	(828)	-3%
Materials and Supplies				
Internal Relations	200	-	(200)	-100%
Parts And Materials	38,550	20,069	(18,481)	-48%
Subtotal Materials and Supplies	38,750	20,069	(18,681)	-48%
Outside Services				
Education and Seminars	-	-	-	
Temporary Personnel Services	-	-	-	
Outside Services and Contracting (Incl. Lab Services)	106,998	35,015	(71,983)	-67%
Equipment Repair	64,902	58,660	(6,242)	-10%
Subtotal Outside Services	171,900	93,675	(78,225)	-46%
Other				
Employee Expense	125	-	(125)	-100%
Uniforms	1,800	1,248	(552)	-31%
Subtotal Other	1,925	1,248	(677)	-35%
Total Water Treatment Expense	\$ 600,272	\$ 479,367	\$ (120,905)	-20%

Changes of more than 10% and \$20,000

- A. Outside Services and Contracting is under budget by \$71,983 or 67% due to lower lab and Division of Drinking Water (DDW) fees in the first half of the year. Amount of DDW fees varies from year to year depending on inspection requirements.

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Transmission and Distribution Expenditures

Transmission and Distribution	Budget Through 12/31/16	Actuals Through 12/31/16	Variance Over/(Under)	% Over/Under
Labor	\$ 923,482	\$ 840,561	\$ (82,921)	-9%
Overtime	64,918	66,212	1,294	2%
Burden and Benefits	533,554	377,200	(156,354)	-29% A
Transportation	90,000	76,478	(13,522)	-15%
Materials and Supplies				
Internal Relations	100	-	(100)	-100%
Office Supplies	11,250	2,252	(8,998)	-80%
Parts and Materials	225,000	351,197	126,197	56% B
Safety Training And Equip.	27,498	11,974	(15,524)	-56%
Small Tools/Power Equip.	49,350	20,664	(28,686)	-58% C
Subtotal Materials and Supplies	313,198	386,087	72,889	23%
Outside Services				
Education and Seminars	19,500	4,265	(15,235)	-78%
Temporary Personnel Services	-	1,088	1,088	
Outside Services and Contracting	177,000	95,959	(81,041)	-46% D
Equipment Repair and Rental	12,498	2,121	(10,377)	-83%
Asphalt Concrete Patch	199,998	60,431	(139,567)	-70% E
Subtotal Outside Services	408,996	163,864	(245,132)	-60%
Other				
Utilities - Cell Phone, Phone , Electricity and Gas	31,248	21,043	(10,205)	-33%
Employee Expense	1,998	1,804	(194)	-10%
Uniforms	6,498	4,302	(2,196)	-34%
Other Misc. (Permits)	21,000	18,701	(2,299)	-11%
Subtotal Other	60,744	45,850	(14,894)	-25%
Total Transmission And Distribution Expense	\$ 2,394,892	\$ 1,956,252	\$ (438,640)	-18%

Changes of more than 10% and \$20,000

- A. Burden and Benefits are under budget by \$156,354 or 29% due to some staff vacancies.
- B. Parts and Materials are over budget by \$126,197 or 56% due to meters, lids and boxes purchased for the meter replacement program and for developer's projects which will be credited back when checked out of inventory. Budgeted evenly throughout the year and purchases are made depending on inventory levels.
- C. Small Tools/Power Equipment is under budget by \$28,686 or 58% due to less replacement needed in the first half of the year.
- D. Outside Services and Contracting is under budget by \$81,041 or 46% due to fewer emergency repairs.
- E. Asphalt and Concrete Patch is under budget by \$139,567 or 70% due to fewer emergency repairs.

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Engineering Expenditures

Engineering	Budget Through 12/31/16	Actuals Through 12/31/16	Variance Over/(Under)	% Over/Under	
Labor	\$ 239,710	\$ 175,549	\$ (64,161)	-27%	A
Burden and Benefits	122,472	81,285	(41,187)	-34%	B
Transportation	2,898	2,569	(329)	-11%	
Materials and Supplies					
Internal Relations	200	-	(200)		
Office Supplies	3,498	1,657	(1,841)	-53%	
Postage	401	-	(401)	-100%	
Parts and Materials	10,500	231	(10,269)	-98%	
Subtotal Materials and Supplies	14,599	1,888	(12,711)	-87%	
Outside Services					
Education and Seminars	14,802	3,815	(10,987)	-74%	
Temporary Personnel Services	-	7,335	7,335	-100%	
Outside Services and Contracting	102,498	31,949	(70,549)	-69%	C
Equipment Repair	4,500	2,487	(2,013)	-45%	
Subtotal Outside Services	121,800	45,586	(76,214)	-63%	
Other					
Cell Phone	1,548	904	(644)	-42%	
Dues And Memberships	2,748	2,263	(485)	-18%	
Employee Expense	8,652	4,424	(4,228)	-49%	
Subtotal Other	12,948	7,591	(5,357)	-41%	
Total Engineering Expense	\$ 514,427	\$ 314,468	\$ (199,959)	-39%	

Changes of more than 10% and \$20,000

- A. Labor is under budget by \$64,161 or 27% due to more time charged to projects.
- B. Burden and Benefits are under budget by \$41,187 or 34% due to more time charged to projects.
- C. Outside Services and Contracting is under budget by \$70,549 or 69% due to lower need for general engineering support, more work done in-house and more costs allocated to projects in the first half of the year.

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Customer Service Expenditures

Customer Service	Budget Through 12/31/16	Actuals Through 12/31/16	Variance Over/(Under)	% Over/Under
Uncollectibles	\$ 37,500	\$ 28,212	\$ (9,288)	-25%
Labor	172,354	180,108	7,754	4%
Overtime	248	167	(81)	-33%
Burden and Benefits	96,032	104,606	8,574	9%
Transportation	-	-	-	0%
Materials and Supplies				
Internal Relations	150	150	-	0%
Office Supplies	2,898	895	(2,003)	-69%
Postage	77,502	66,491	(11,011)	-14%
Parts And Materials	5,550	5,707	157	3%
Subtotal Materials and Supplies	86,100	73,243	(12,857)	-15%
Outside Services				
Education and Seminars	3,750	661	(3,089)	-82%
Temporary Personnel Services	-	-	-	0%
Outside Services and Contracting	116,748	65,715	(51,033)	-44% A
Equipment Repair	-	-	-	
Subtotal Outside Services	120,498	66,376	(54,122)	-45%
Other				
Cell Phone	1,298	1,169	(129)	-10%
Employee Expense	1,998	566	(1,432)	-72%
Subtotal Other	3,296	1,735	(1,561)	-47%
Total Customer Service Expense	\$ 516,028	\$ 454,447	\$ (61,581)	-12%

Changes of more than 10% and \$20,000

- A. Outside Services and Contracting is under budget by \$51,033 or 44% due to the capitalization of the Core Automation Project part of the Utility Billing (UB) enhancement and lower need for software modifications and support in the first half of the year.

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Administrative and General Expenditures

Administrative and General Expense	Budget Through 12/31/16	Actuals Through 12/31/16	Variance Over/(Under)	% Over/Under
Labor	\$ 408,332	\$ 394,363	\$ (13,969)	-3%
Overtime	6,068	1,768	(4,300)	-71%
Burden and Benefits	202,323	203,202	879	0%
Shared Labor and Benefits/CLWA	321,740	309,414	(12,326)	-4%
Transportation	3,252	45	(3,207)	-99%
Material and Supplies				
Internal Relations	-	-	-	
Office Supplies	12,048	6,626	(5,422)	-45%
Postage	1,248	1,240	(8)	-1%
Parts and Materials	45,102	16,356	(28,746)	-64% A
Subtotal Materials and Supplies	58,398	24,222	(34,176)	-59%
Outside Services				
Education and Seminars	8,598	3,314	(5,284)	-61%
Temporary Personnel Services	-	-	-	
Outside Services and Contracting	459,248	198,113	(261,135)	-57% B
Office Equipment Repair	5,502	6,084	582	11%
Subtotal Outside Services	473,348	207,511	(265,837)	-56%
Other				
Telephone Office and Cell Phone	16,500	22,476	5,976	36%
Utilities- Electricity and Gas (Office)	22,000	19,867	(2,133)	-10%
Miscellaneous	6,498	-	(6,498)	-100%
Subtotal Other	44,998	42,343	(2,655)	-6%
Insurance- Property, Liability, Retiree, Workers Comp	180,552	162,947	(17,605)	-10%
Franchise Requirements	-	-	-	
Directors Compensation	6,000	3,863	(2,137)	-36%
Professional Services - Legal	70,002	106,360	36,358	52% C
Professional Services - Other	82,500	7,735	(74,765)	-91% D
Dues, Memberships and Employee Expense	31,200	24,135	(7,065)	-23%
Rent	3,300	2,596	(704)	-21%
A and G Transfer - Labor	(67,698)	(67,416)	282	0%
Total Administrative and General	\$ 1,824,315	\$ 1,423,088	\$ (401,227)	-22%

Changes of more than 10% and \$20,000

- A. Parts and Materials are under budget by \$28,746 or 64% due to the timing of larger purchases such as PC replacements, IT hardware and event giveaways for conservation.
- B. Outside Services and Contracting is under budget by \$261,135 or 57% due to the timing of some conservation programs (drip irrigation, sprinkler nozzle and other miscellaneous programs).
- C. Professional Services Legal is over budget by \$36,358 or 52% due to more services required on Whittaker Bermite than anticipated.
- D. Professional Services Other is under budget by \$74,765 or 91% due to the timing of invoices by the rate consultant and other consultants that will be used more in the second half of the year.

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Capital Improvement Program

	FY 2016/17 Budget and FY 2015/16 Carry Forward	Actuals Through 12/31/16	Total Amount Remaining	% Spent	
Major Capital Improvement Projects					
Reservoirs					
3.25 MG Placerita Pressure Zone Storage (originally 3.25 MG Placerita Tank)	\$ 250,000	\$ 23,908	\$ 226,092	10%	A
Pipelines					
Los Angeles Residential Community (LARC) Water Pipeline	700,000	-	700,000	0%	B
Recycled Water Pipeline	250,000	-	250,000	0%	C
Total Major Capital Improvement Projects	\$ 1,200,000	\$ 23,908	\$ 1,176,092	2%	

	FY 2016/17 Budget and FY 2015/16 Carry Forward	FY 2016/17 Cost to Date thru 12/31/16	Total Amount Remaining	% Spent	
Repair and Replacement Projects					
Wells					
Chlorinator Replacement Program	\$ 60,000	\$ 1,135	\$ 58,865	2%	
Clark Well	70,500	32,777	37,723	46%	
Well Allowance FY 2016/17	60,000	6,937	53,063	12%	
Pressure Regulating Stations					
Placerita Canyon Road	53,000	-	53,000	0%	
Rainbow Glen/Sierra Highway	5,700	-	5,700	0%	
Whites Canyon and Americana	55,000	-	55,000	0%	
Booster Pumps					
Booster Allowance FY 2016/17	\$ 100,000	\$ 44,072	\$ 55,928	44%	
Booster Mag Meter	41,000	-	41,000	0%	
Circle J Pressure Station	230,000	1,280	228,720	1%	
Circle J Pressure Station (Expansion)	230,000	1,280	228,720	1%	
Subtotal Circle J Pressure Station	460,000	2,561	457,439	1%	D
Placerita Booster Station - SC-12	669,000	10,590	658,410	2%	
Placerita Booster Station - SC-12 (Expansion)	669,000	10,590	658,410	2%	
Subtotal Placerita Booster Station - SC-12	1,338,000	21,181	1,316,819	2%	D
Princess Booster - Surge Protection	75,000	-	75,000	0%	
Whites Canyon Booster*	100,000	83,224	16,776	47%	
Reservoir Access					
Asphalt Replacement/Repair Program	117,500	12,474	105,027	11%	
Asphalt Replacement/Repair Program (Expansion)	117,500	12,474	105,026	11%	
Subtotal Asphalt Replacement/Repair Program	235,000	24,947	210,053	11%	D
Mesa Bridge and Tank Road	142,000	-	142,000	0%	D
Reservoir Maintenance					
Dean Tank No. 2 Interior Coating Replacement/Retrofit	170,000	1,365	168,635	1%	
Dean Tank No. 2 Interior Coating Replacement/Retrofit (Expansion)	170,000	1,365	168,635	1%	
Subtotal Dean No. 2 Interior Coating Replacement/Retrofit	340,000	2,730	337,270	1%	E
Subtotal Repair and Replacement Projects	\$ 3,135,200	\$ 219,564	\$ 2,915,636	7%	

Expansion

- A. Land purchase scheduled in second half of FY 2016/17 and construction deferred to FY 2017/18.
- B. Design scheduled in second half of FY 2016/17 and construction deferred to FY 2017/18.
- C. California Environmental Quality Act (CEQA) documents scheduled in second half of FY 2016/17 and design and construction deferred to FY 2017/18.
- D. Balance of expenditures scheduled in second half of FY 2016/17.
- E. Expenditures scheduled in second half of FY 2016/17.

Santa Clarita Water Division
 FY 2016/17 Midyear Budget Report
 Capital Improvement Program

	FY 2016/17 Budget and FY 2015/16 Carry Forward	FY 2016/17 Cost to Date thru 12/31/16	Total Amount Remaining	% Spent	
Repair and Replacement Projects (Cont.)					
Earthquake Valve Retrofit	156,000	19,908	136,092	13%	E
Placerita No. 2 Tank Interior Coating Replacement/Retrofit	235,000	3,968	231,032	2%	
Placerita No. 2 Tank Interior Coating Replacement/Retrofit (Expansion)	235,000	3,968	231,032	2%	
Subtotal Placerita No. 2 Interior Coating Replacement/Retrofit	470,000	7,937	462,063	2%	E
Tank Allowance	50,000	-	50,000	0%	
Pipeline and Service Replacement					
Rainbow Glen (WMP Pipe #5)	25,000	-	25,000	0%	
Service Line Replacement Program FY 2016/17	200,000	51,143	148,858	26%	D
Soledad Canyon Road from Oak Springs Canyon Road to Rue Entrée	35,000	-	35,000	0%	
West Newhall Alley	17,000	-	17,000	0%	
Total Repair and Replacement Projects	\$ 4,088,200	\$ 298,551	\$ 3,789,649	7%	
Capital Equipment					
Meters					
Automated Meter Reading (AMR) FY 2016/17	\$ 800,000	\$ 783,223	\$ 16,777	98%	
Computer Software					
Core Automation Suite - Northstar	11,000	5,040	5,960	46%	
Electronic Timesheet Upgrade	20,000	-	20,000	0%	
GIS Implementation	70,000	131	69,869	0%	
GIS Implementation (Expansion)	70,000	131	69,869	0%	
Subtotal GIS	140,000	261	139,739	0%	D
Water Distribution System Hydraulic Model	100,000	-	100,000	0%	
Media Equipment					
26521 Summit Circle Conference Room Projection System	24,000	16,695	7,305	70%	
Office Equipment					
Copier/Scanner	25,000	24,306	694	97%	
Oce ColorWave 500	28,000	22,635	5,365	81%	
Computer Hardware					
Network Switch Stacking	8,000	-	8,000	0%	
Building Improvements					
22722 Soledad Canyon Road Building Exterior Lighting Replacement	40,000	-	40,000	0%	
26521 Summit Circle Bullpen Gate Upgrade	15,000	12,933	2,067	86%	
Facility Video Surveillance	166,000	1,648	164,353	1%	
Transportation Equipment					
Crew Truck	120,000	-	120,000	0%	E
Office Vehicle	35,000	-	35,000	0%	
Service Truck	45,000	-	45,000	0%	
Super Cab Trucks (2)	66,000	-	66,000	0%	
Total Capital Equipment	\$ 1,643,000	\$ 866,740	\$ 776,260	53%	
Total Capital	\$ 6,931,200	\$ 1,189,198	\$ 5,742,002	17%	
Expansion					

D. Balance of expenditures scheduled in second half of FY 2016/17.

E. Expenditures scheduled in second half of FY 2016/17.

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Castaic Lake Water Agency Memorandum

February 10, 2017

To: Retail Operations Committee

From: Keith Abercrombie *KA*
Retail Manager

Subject: Recommend Approval of a Resolution Adopting the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program Under the California Environmental Quality Act for the Los Angeles Residential Community Water Pipeline Project

SUMMARY

On July 2016, the Castaic Lake Water Agency (CLWA) Board authorized CLWA to apply for funding from the Drinking Water State Revolving Fund (DWSRF) on behalf of the Los Angeles Residential Community Foundation (LARC) for construction of a pipeline to serve LARC Ranch. The Grant Application requires that the Project be covered under the California Environmental Quality Act (CEQA), and include approved CEQA documents. CLWA, with the assistance of Meridian Consultants, prepared and released a draft Initial Study (IS) and Mitigated Negative Declaration (MND) for proposed construction of the pipeline for public review in compliance with the requirements of CEQA. CLWA is the CEQA lead agency and must adopt the MND prior to submitting it as part of the Grant Application.

DISCUSSION

Background: LARC has been providing services to adults with developmental disabilities since 1959. LARC Ranch has traditionally met its water needs with onsite potable wells. The recent extended drought conditions in southern California have impacted these wells, and LARC has been forced to haul water to meet their needs. LARC has requested that Santa Clarita Water Division (SCWD), a Division of Castaic Lake Water Agency extend its existing system in order to provide service to the LARC Ranch. SCWD's existing system is approximately one and three-quarter miles from the LARC Ranch.

CLWA is preparing a Grant Application on behalf of LARC to secure grant funding from the DWSRF to construct the pipeline needed to serve the LARC Ranch. LARC cannot apply directly for the grant funds since they are a private, non-profit entity. At the request of LARC and the State Water Resources Control Board (SWRCB), the CLWA Board authorized CLWA to apply for the funding on LARC's behalf (Resolution No. 3116). The Grant Application must include an environmental package with documentation to demonstrate compliance with CEQA.

Project Description: SCWD proposes to construct a new 12-inch ductile iron water transmission line by connecting to the nearest SCWD water line at Shadow Valley Lane and extending approximately 9,500 linear feet along Bouquet Canyon Road to a new service meter at the frontage of the LARC Ranch. The 12-inch line is sized to provide for connections at the LARC Ranch and by other existing residential and commercial water users along Bouquet Canyon Road. SCWD will provide a master meter to serve the LARC Ranch. For purposes of CEQA, the project also includes onsite water system infrastructure to be built and maintained by LARC.

CEQA Analysis: CLWA, with the assistance of Meridian Consultants, prepared a draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Project. The IS/MND analyzed the potential environmental impacts for the Project and concluded that with mitigation, there would be no significant

impacts. Mitigation measures needed to mitigate or avoid potentially significant impacts are included in the IS/MND for the following environmental factors: biological resources, cultural resources, hazards and hazardous materials, and noise.

CEQA Public Review Process: On December 14, 2016, CLWA circulated a Notice of Intent (NOI), provided notice in the *Santa Clarita Valley Signal*, and released the draft IS/MND in compliance with CEQA requirements for a 30-day review and comment period by the public and responsible and reviewing agencies. The review period ended on January 13, 2017. Two comment letters were received from:

- California Department of Transportation (“Caltrans”) District 7, Office of Transportation Planning, dated January 12, 2017 – The comment states that Caltrans does not expect Project approval to result in direct adverse impacts to the existing State transportation facilities. The comment letter also notes that the Project must comply with the General Construction Storm Water Permit, and that oversized transport vehicles will require a Caltrans permit if traveling on State highways.
- California State Clearinghouse Office of Planning and Research, dated January 13, 2017. The comment notes that only one State agency, Caltrans, submitted comments on the Draft IS/MND and that CLWA has complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to CEQA.

Final CEQA Documents for CLWA Board Approval:

The State CEQA Guidelines (California Code of Regulations (“CCR”) Section 15074, Public Resources Code Section 21092) require public agencies to review and consider the MND, the IS, and comments received during the public review period prior to the adoption of the MND. Adoption of the MND is dependent on the finding by the Board that, based on the whole record before it, there is no substantial evidence, with the mitigation measures required by the MND, that the proposed project will have a significant impact on the environment, and that the MND reflects the Lead Agency’s independent judgment and analysis. Exhibit A to the resolution contains the IS/MND and comment letters received during the public review period.

Additionally, the State CEQA guidelines (CCR, sec 15097) require public agencies adopting an IS/MND to adopt a program for monitoring or reporting to ensure that mitigation measures in the IS/MND are implemented to mitigate or avoid potentially significant environmental impacts. The Mitigation Monitoring and Reporting Program (MMRP) is incorporated into the Final IS/MND in Exhibit A, Section 3.0.

All of the above documentation, including other materials that constitute the record of proceedings upon which the Lead Agency decision is based, is on file at Santa Clarita Water Division, a Division of Castaic Lake Water Agency, 26521 Summit Circle, Santa Clarita, CA 91350.

FINANCIAL CONSIDERATIONS

None.

RECOMMENDATION

That the Retail Operations Committee recommends that the Board of Directors approve a resolution adopting the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program under the California Environmental Quality Act for the Los Angeles Residential Community Water Pipeline Project.

Attachments

M6S

RESOLUTION NO.

**RESOLUTION OF THE CASTAIC LAKE WATER AGENCY BOARD OF DIRECTORS
ADOPTING THE MITIGATED NEGATIVE DECLARATION AND MITIGATION
MONITORING AND REPORTING PROGRAM UNDER THE CALIFORNIA
ENVIRONMENTAL QUALITY ACT FOR THE LOS ANGELES RESIDENTIAL
COMMUNITY WATER PIPELINE PROJECT**

WHEREAS, the Castaic Lake Water Agency (CLWA) is applying for funding from the drinking water state revolving fund on behalf of the Los Angeles Residential Community Foundation ("LARC"), pursuant to Resolution No. 3116, to construct a pipeline to extend the Santa Clarita Water Division system in order to provide service to LARC; and

WHEREAS, LARC operates a community water system for the benefit of the LARC property and the system, which includes potable water wells, has been unable to provide adequate water to the property due to the severe and extended drought conditions in Southern California; and

WHEREAS, CLWA, acting as lead agency under the California Environmental Quality Act ("CEQA") circulated for public comment a proposed Initial Study and draft Mitigated Negative Declaration (collectively, the "Draft MND") for the LARC Ranch Water Pipeline Project ("Project"); and

WHEREAS, in accordance with State CEQA Guidelines Section 15072(b), on December 16, 2016, CLWA mailed a Notice of Intent to Adopt the Draft MND to all responsible and trustee agencies, the Office of Planning and Research, and members of the public that have requested notice; CLWA also published the Notice of Intent to Adopt the Draft MND in the *Santa Clarita Valley Signal*, a newspaper of general circulation; and

WHEREAS, as required by State CEQA Guidelines section 15072(d), the Notice of Intent to Adopt the Draft MND was concurrently posted by the Clerk of the Board for the County of Los Angeles; and

WHEREAS, in accordance with State CEQA Guidelines section 15073, the Draft MND was circulated for at least 30 days, from December 14, 2016, through January 13, 2017; and

WHEREAS, CLWA received two comment letters during the comment period; one from the State of California Governor's Office of Planning and Research, State Clearinghouse indicating that the CLWA has complied with the State Clearinghouse review requirements for draft environmental documents pursuant to CEQA, and one from the California Department of Transportation Caltrans District 7 – Office of Transportation Planning indicating that Caltrans does not expect Project approval to result in a direct adverse impact to existing State transportation facilities. The comments and CLWA's response to the comments were considered as part of CLWA's decisional process concerning the Project; and

WHEREAS, the Draft MND, the comments thereto and CLWA's responses to comments were incorporated into and together constitute the Final MND (hereinafter, the "MND"), and are attached as Exhibit A; and

WHEREAS, a notice of public meeting relating to the MND was duly given and posted in the manner and for the time frame prescribed by law, and the SCWD Retail Operations Committee (“ROC”) held a public meeting on the Project at the Santa Clarita Water Division located at 26521 Summit Circle, Santa Clarita, CA 91350, in the Training Room on February 28, 2017, at 5:30 P.M., as part of its decision process concerning the Project; and

WHEREAS, the ROC recommended that CLWA’s Board of Directors (“Board”) approve a resolution adopting the MND and Mitigation Monitoring and Reporting Program (“MMRP”); and

WHEREAS, a notice of public meeting relating to the MND was duly given and posted in the manner and for the time frame prescribed by law, and CLWA’s Board of Directors held a public meeting on the Project at its Boardroom, 27234 Bouquet Canyon Road, Santa Clarita, CA 91350 on March 8, 2017, at 6:15 P.M., as part of its decision process concerning the Project, at which time all persons wishing to comment in connection the MND were heard; and

WHEREAS, the Board has carefully reviewed the MND and the MMRP (Exhibit A, section 3.0-1), which are incorporated by reference into this Resolution; and

WHEREAS, based on the MND and the MMRP, the Board has determined that there is no substantial evidence in light of the whole record that the Project will have a significant effect on the environment; and

WHEREAS, the Board has considered all of the information presented to it as set forth above and this Resolution and action taken hereby is a result of the Board’s independent judgment and analysis.

WHEREAS, all the requirements of the Public Resources Code and the State CEQA Guidelines have been satisfied in connection with the preparation of the MND, which is sufficiently detailed so that all of the potentially significant environmental effects of the Project, as well as feasible mitigation measures, have been adequately evaluated; and

WHEREAS, no comments made during the public review period, or in the public meetings conducted by CLWA and no additional information submitted to CLWA have produced substantial new information requiring recirculation of the MND or additional environmental review of the Project under State CEQA Guidelines section 15073.5; and

WHEREAS, all other legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, BE IT RESOLVED that the CLWA Board does hereby find and determine as follows:

SECTION 1. RECITALS. CLWA finds that the foregoing recitals are true and correct and are incorporated herein as substantive findings of this Resolution.

SECTION 2. COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT. As a decision-making body for the Project, CLWA has reviewed and considered the information contained in the MND, comments received, and other documents contained in the administrative record for the Project. Based on CLWA's independent review and analysis, CLWA finds that the MND and administrative record contain a complete and accurate reporting of the environmental impacts associated with the Project, and that the MND has been completed in compliance with CEQA and the State CEQA Guidelines.

SECTION 3. FINDINGS ON ENVIRONMENTAL IMPACTS. Based on the whole record before it, including the MND, the administrative record, and all other written and oral evidence presented to CLWA, CLWA finds that all environmental impacts of the Project are either less than significant or can be mitigated to a level of less than significant under the mitigation measures outlined in the MND and the MMRP. CLWA finds that substantial evidence fully supports the conclusion that no significant and unavoidable impacts will occur and that, alternatively, there is no substantial evidence in the administrative record supporting a fair argument that the Project may result in any significant environmental impacts. CLWA finds that the MND contains a complete, objective, and accurate reporting of the environmental impacts associated with the Project and reflects the independent judgment and analysis of CLWA.

SECTION 4. ADOPTION OF THE MITIGATED NEGATIVE DECLARATION. CLWA hereby approves and adopts the MND.

SECTION 5. ADOPTION OF THE MITIGATION MONITORING AND REPORTING PROGRAM. In accordance with Public Resources Code section 21081.6, CLWA hereby adopts the MMRP. In the event of any inconsistencies between the Mitigation Measures as set forth in the MND and the MMRP, the MMRP shall control.

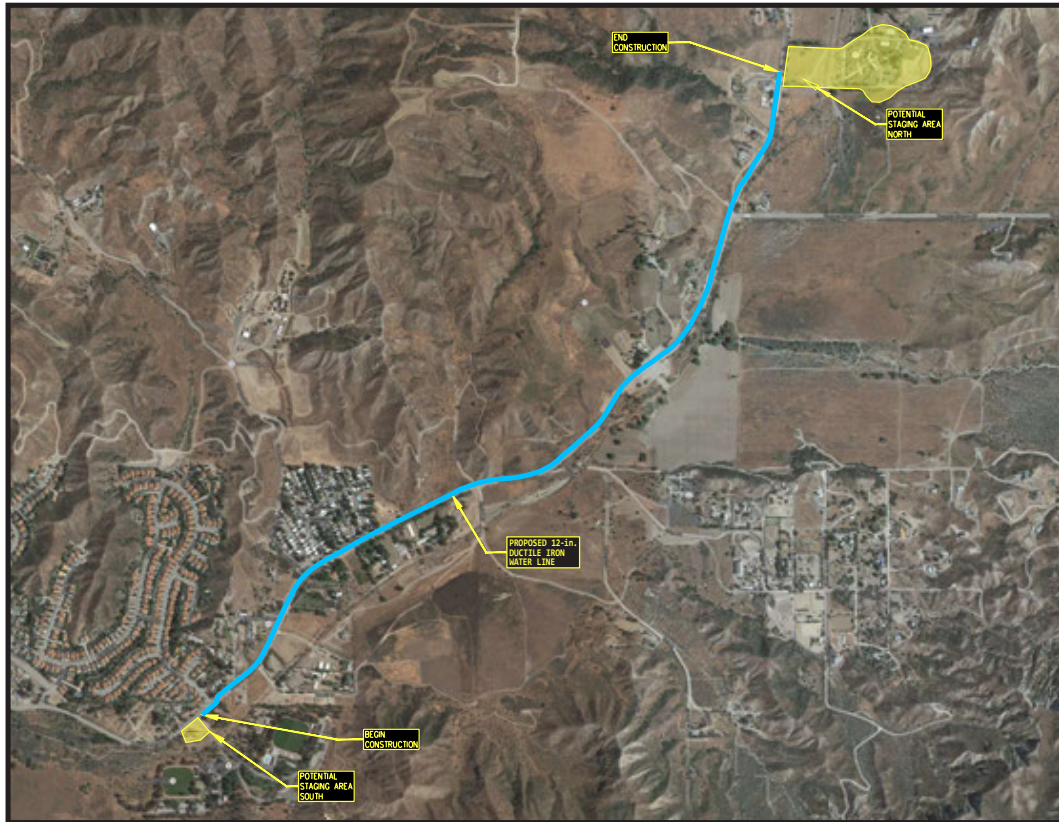
SECTION 6. LOCATION AND CUSTODIAN OF RECORDS. The documents and materials associated with the Project and the MND that constitute the record of proceedings on which these findings are based are located at the offices of Santa Clarita Water, a Division of the Castaic Lake Water Agency, 26521 Summit Circle, Santa Clarita, CA 91350. The Custodian of Record is Keith Abercrombie.

EXHIBIT "A"

Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program

LARC Ranch Water Pipeline

Final Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program



Prepared for
Castaic Lake Water Agency

Prepared by:



910 Hampshire Road, Suite V
Westlake Village, CA 91361
(805) 367-5720 FAX (805) 367-5733

February 2017

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Final Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program

LARC Ranch Water Pipeline Project

Prepared for:

Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, California 91350

Prepared by:

Meridian Consultants LLC
910 Hampshire Road, Suite V
Westlake Village, CA 91361

February 2017

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TABLE OF CONTENTS

Section	Page
1.0 Introduction	1.0-1
1.1 Description of the Proposed Project.....	1.0-1
1.2 Public Review Process.....	1.0-2
1.3 Organization of the Final IS/MND.....	1.0-3
2.0 Comments on the Draft IS	2.0-1
Response to California State Clearinghouse Office of Planning and Research.....	2.0-1
Response to California Department of Transportation District 7—Office of Transportation Planning	2.0-1
3.0 Mitigation Monitoring and Reporting Program.....	3.0-1

List of Appendices

- A LARC Ranch Water Pipeline Project Draft Initial Study
- B LARC Ranch Water Pipeline NOI

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1.0 INTRODUCTION

1.1 PURPOSE

This Final Initial Study (IS) and Mitigated Negative Declaration (MND; together, IS/MND) has been prepared for the LARC Ranch Water Pipeline Project (“proposed Project”) in accordance with the requirements of the California Environmental Quality Act (CEQA)¹ and the State CEQA Guidelines.² The Santa Clarita Water Division (SCWD), a part of the Castaic Lake Water Agency (CLWA), is acting as the Lead Agency as defined by CEQA for the environmental review of the proposed Project.

1.2 DESCRIPTION OF THE PROPOSED PROJECT

Historically, LARC has extracted groundwater from two wells adjacent to Bouquet Creek that overlie the Bouquet Canyon Area of the alluvial aquifer of the Upper Santa Clara River East Subbasin. However, due to prolonged drought, the aquifer can no longer support groundwater production at LARC’s two wells. LARC is currently trucking in water from a public SCWD hydrant located about 1.8 miles away and storing it in an existing on-site 0.36-million-gallon (MG) storage tank that is owned and operated by LARC to provide for LARC’s daily water demands. The proposed Project would extend an existing SCWD pipeline by constructing a new 12-inch ductile iron water transmission line, connecting it to the nearest SCWD water line at Shadow Valley Lane, and then extending the line approximately 9,500 linear feet to a new service meter at the frontage of the LARC Ranch property (“Project Site”).

The width of the construction alignment would range from 30 inches for the water pipeline trench to 20 feet for the temporary closure of the Bouquet Canyon Road southbound lane. The water pipeline alignment would traverse from southwest to the northeast within the public roadway right-of-way along Bouquet Canyon Road. The pipeline alignment was developed specifically to provide for connections by LARC and other existing residential and commercial water users along Bouquet Canyon Road while minimizing conflicts with other existing utilities.

The Project as proposed would include an on-site booster pump station and pipeline located on LARC grounds to connect and fill the existing 0.36 MG storage tank from the new service meter. The on-site pump station would include two 10 horsepower (hp) pumps within a block wall building, which would have a footprint of less than 200 square feet. The pump station would be approximately 10 feet high and located adjacent to similar type of walled enclosures. A new 4-inch polyvinyl chloride (PVC) pipeline would extend approximately 700 feet from a SCWD service meter to the pump station. Discharge pipeline from the pump would extend approximately 30 feet to connect to an existing 8-inch LARC pipeline that extends

1 California Code of Regulations, sec. 21000 et seq.

2 California Code of Regulations, sec. 15070–15075, State CEQA Guidelines.

to the 0.36 MG tank and through the existing private distribution system. The pump station is planned to be owned and operated by LARC. The proposed water pipeline would be generally located approximately 48 inches below grade, with roadway pavement and native soils above the pipeline. The pipeline may be deeper (about 10 feet deep) at certain undercrossing locations where the water pipeline must be placed below existing shallow storm drains. Bedding and backfill material would be utilized to fill around and below the proposed water pipeline. In addition to the water pipeline, air/vacuum release valves and fire hydrants would be installed aboveground at certain locations within the existing road right-of-way along the proposed alignment.

During construction of the proposed Project, construction equipment would need to be stored at the end of each day. Two construction staging areas were identified along the proposed pipeline alignment: a southern staging area and a northern staging area. The southern staging area would be located adjacent to the south of Bouquet Canyon Road, within Kenyon Scudder Detention School property; the northern staging area would be located at the northern most portion of the proposed pipeline alignment, within LARC Ranch property.

1.3 PUBLIC REVIEW PROCESS

On December 14, 2016, SCWD circulated a Notice of Intent (NOI; see **Appendix B**) of the IS for a 30-day review and comment period by the public and by responsible and reviewing agencies. The review period ended on January 13, 2017. In addition, a notice was published in the *Santa Clarita Valley Signal* on December 15, 2016.

The Final IS/MND and Draft IS are available for review at:

Castaic Lake Water Agency
Santa Clarita Water Division office
26521 Summit Circle, Santa Clarita, CA 91350

The Final IS/MND and Draft IS are also available online at:

<https://santaclaritawater.com/> and <https://www.clwa.org/>

The State CEQA Guidelines³ require that the decision-making body of the Lead Agency consider the proposed IS together with any comments received during the public review process prior to approving a project.

Two comment letters were received regarding the Draft IS. One letter was from the State of California Governor's Office of Planning and Research, State Clearinghouse, on January 13, 2017. The comment

3 California Code of Regulations, sec. 15074(b), State CEQA Guidelines.

notes that only one State agency, the California Department of Transportation (“CalTrans”) submitted comments on the Draft IS, and that SCWD has complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to CEQA.

CalTrans District 7—Office of Transportation Planning submitted a comment letter on January 12, 2017. The comment states that CalTrans does not expect Project approval to result in direct adverse impacts to the existing State transportation facilities, notes that any transportation which requires the use of oversized-transport vehicles on State highways will require a Caltrans transportation permit, and further notes that the Project should be mindful of storm water runoff as a sensitive issue for the area.

The Final MND, when combined with the Draft IS, constitutes the complete environmental review document for the proposed Project to be considered by the CLWA Board of Directors, as the decision-making body, before it makes its decision on the proposed Project. State CEQA Guidelines⁴ require that the Lead Agency consider the IS together with any comments received during the public review prior to approving a project. The decision-making body shall adopt the Final IS/MND only if it finds, on the basis of the whole record before it (including the IS and any comments received), that there is no substantial evidence that the Project will have a significant effect on the environment and that the Final IS/MND reflects the Lead Agency’s independent judgment and analysis.

Additionally, the State CEQA Guidelines⁵ require that the Lead Agency adopt a mitigation monitoring program for reporting on or monitoring the physical changes of the project site and mitigating significant environmental effects.

1.4 ORGANIZATION OF THE FINAL IS/MND

As required by the State CEQA Guidelines, the Final IS/MND consists of the following elements:

- Comments received from reviewing agencies and the public on the Draft IS during the public review process and responses to those comments (see **Section 2.0**).
- A Mitigation Monitoring and Reporting Program (MMRP), which provides a summary of impacts, mitigation measures, and implementation procedures (see **Section 3.0**).
- The Draft IS and NOI (see **Appendix A** and **Appendix B**, respectively).

A disc containing these documents is also attached to the inside back cover of this Final IS/MND.

4 California Code of Regulations, sec. 15074(b), State CEQA Guidelines.

5 California Code of Regulations, sec. 15074(d), State CEQA Guidelines.

2.0 COMMENTS ON THE DRAFT IS

The State CEQA Guidelines⁶ require that the decision-making body of the Lead Agency consider the proposed IS together with any comments received during the public review process prior to approving a project.

The following comment letters were received regarding the Draft IS:

- California State Clearinghouse Office of Planning and Research, dated January 13, 2017
- California Department of Transportation District 7—Office of Transportation Planning, dated January 12, 2017

Response to California State Clearinghouse Office of Planning and Research

The comment notes that only one State agency, the CalTrans, submitted comments on the Draft IS and that CLWA has complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to CEQA.

Response to California Department of Transportation District 7—Office of Transportation Planning

The comment notes that the nearest State facilities to the proposed project is State Route (SR)-14. The comment indicates that Caltrans does not expect Project approval to result in a direct adverse impact to the existing State transportation facilities. The comment also notes that any transportation of heavy construction equipment and/or materials necessitating the use of oversized transport vehicles on State highways will require a Caltrans transportation permit, and that large size truck trips are be limited to off-peak commute periods.

This comment is noted. As identified in the Draft IS, construction-related trips would occur outside of the peak commuting periods. No significant impact would occur to transportation levels of service.

Finally, Caltrans commented on stormwater runoff. As indicated in the Draft IS, the proposed Project would be required to comply with the General Construction Storm Water Permit (Water Quality Order 99-08-DWQ) issued by the State Water Resources Control Board. No significant impacts to water runoff would occur with implementation of the Project.

⁶ California Code of Regulations, sec. 15074(b), State CEQA Guidelines.



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

January 13, 2017

Keith Abercrombie
Santa Clarita Water a Division of the Castaic Lake Water Agency
26521 Summit Circle
Santa Clarita, CA 91350

Subject: LARC Ranch Water Pipeline Project
SCH#: 2016121040

Dear Keith Abercrombie:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on January 12, 2017, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

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 contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report State Clearinghouse Data Base

SCH# 2016121040
Project Title LARC Ranch Water Pipeline Project
Lead Agency Santa Clarita Water a Division of the Castaic Lake Water Agency

Type MND Mitigated Negative Declaration

Description The proposed project would include the construction of a new 12-in ductile iron water transmission line by connecting to the nearest SCWD water line at Shadow Valley Lane and extending approximately 9,500 lf to a new service meter at the frontage of the LARC Ranch property. The width of the alignment would range from 30 in for the water pipeline trench to 20 ft for the temporary closure of the Bouquet Canyon Rd southbound. An on site booster pump station and 700 ft pipeline located on LARC grounds would connect to and fill the existing 0.36 MG storage tank from the new service meter. Discharge pipeline from the pump would extend approximately 30 ft to connect to an existing 8-in LARC pipeline that extends to the 0.36 MG tank. The pump station would be apx 10 ft high and less than 200 sf.

Lead Agency Contact

Name Keith Abercrombie
Agency Santa Clarita Water a Division of the Castaic Lake Water Agency
Phone 661-964-3980 **Fax**
email
Address 26521 Summit Circle
City Santa Clarita **State** CA **Zip** 91350

Project Location

County Los Angeles
City Santa Clarita
Region
Lat / Long 34° 28' 43" N / 118° 27' 48" W
Cross Streets Shadow Valley Ln and Bouquet Canyon Rd
Parcel No. 2813-013-028
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways Bouquet Creek
Schools Jo. S. Detention School
Land Use Residential 5 (H5), Community service, general commercial, and rural land

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

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 7; State Water Resources Control Board, Division of Drinking Water; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Board, Region 4; Native American Heritage Commission

Date Received 12/14/2016 **Start of Review** 12/14/2016 **End of Review** 01/12/2017

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

DEPARTMENT OF TRANSPORTATION
DISTRICT 7—OFFICE OF TRANSPORTATION PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
FAX (213) 897-1337
www.dot.ca.gov



*Serious drought.
Help save water!*

January 12, 2017

Governor's Office of Planning & Research

JAN 12 2017

STATE CLEARINGHOUSE

clear

1/12/17E

RE: LARC Ranch Water Pipeline Project
Mitigated Negative Declaration
SCH# 2016121040
IGR# 07-LA-2016-00384
Vic. LA/ 14/ PM R30.726

Mr. Keith Abercrombie
Santa Clarita Water,
Division of Castaic Lake Water Agency
26521 Summit Circle
Santa Clarita, CA 91350

Dear Mr. Abercrombie:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project.

The proposed project would include the construction of a new 12-inch ductile iron water transmission line by connecting to the nearest Santa Clarita Water Division (SCWD) water line at Shadow Valley Lane and extending approximately 9,500 linear feet to a new service meter at the frontage of the LARC Ranch property. An on-site booster pump station and pipeline located on LARC grounds to connect and fill the existing 0.36 MG storage tank from the new service meter. In addition to the water pipeline, air/vacuum release valves and fire hydrant would be installed aboveground at certain locations within the existing road right of way along the proposed alignment.

The nearest State facilities to the proposed project is SR-14. Caltrans does not expect project approval to result in a direct adverse impact to the existing State transportation facilities. As a reminder, any transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. Caltrans recommends that large size truck trips be limited to off-peak commute periods.

Storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that project needs to be designed to discharge clean run-off water.

If you have any questions or concerns regarding these comments, please contact project coordinator, Frances Lee at (213) 897-0673 or electronically at frances.lee@dot.ca.gov.

Sincerely,

DIANNA WATSON, Branch Chief
LD-IGR/CEQA Review

cc: Scott Morgan, State Clearinghouse

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability."*

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF TRANSPORTATION PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
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*Serious drought.
Help save water!*

January 12, 2017

Mr. Keith Abercrombie
Santa Clarita Water,
Division of Castaic Lake Water Agency
26521 Summit Circle
Santa Clarita, CA 91350

RE: LARC Ranch Water Pipeline Project
Mitigated Negative Declaration
SCH# 2016121040
IGR# 07-LA-2016-00384
Vic. LA/ 14/ PM R30.726

Dear Mr. Abercrombie:

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The nearest State facilities to the proposed project is SR-14. Caltrans does not expect project approval to result in a direct adverse impact to the existing State transportation facilities. As a reminder, any transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. Caltrans recommends that large size truck trips be limited to off-peak commute periods

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If you have any questions or concerns regarding these comments, please contact project coordinator, Frances Lee at (213) 897-0673 or electronically at frances.lee@dot.ca.gov.

Sincerely,

DIANNA WATSON, Branch Chief
LD-IGR/CEQA Review

cc: Scott Morgan, State Clearinghouse

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

3.0 MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program (MMRP) has been prepared, pursuant to the requirements of the State CEQA Guidelines,¹ identifying the monitoring of mitigation measures that would reduce potential significant impacts as stated in the Draft IS for the Project.

The State CEQA Guidelines² require public agencies adopting an IS/MND also adopt a program for monitoring or reporting to ensure that the mitigation measures it has imposed to mitigate or avoid significant environmental effects are implemented.

The MMRP will be required to be adopted by the CLWA should the Board of Directors approve the proposed Project.

The MMRP is available at the Castaic Lake Water Agency, Santa Clarita Water Division office, located at 26521 Summit Circle, Santa Clarita, CA 91350.

The MMRP may be modified by SCWD in response to changing conditions or circumstances. A summary table (**Table 1, Summary of Project Impacts, Mitigation Measures, and Implementation Responsibility**) will guide SCWD in its evaluation and documentation of the implementation of mitigation measures. The MMRP is organized as follows:

- **Mitigation Measure:** Provides the text of the mitigation measures identified in the IS/MND.
- **Timing/Schedule:** Identifies the timeframe in which the mitigation will take place.
- **Implementation Responsibility:** Identifies the entity responsible for complying with mitigation measure requirements.
- **Action:** Describes the type of action taken to verify implementation.
- **Date Completed:** Provides for the acknowledgement of completion of each mitigation measure as it is implemented. Entries should be dated and initialed by SCWD personnel based on the documentation noted in the mitigation measure and provided by the individual or entity responsible for implementing the measure.

Unless otherwise specified herein, SCWD is responsible for taking all actions necessary to implement the mitigation measures according to the provided specifications and for demonstrating that each action has been successfully completed. The CLWA and subsequently the SCWD, at its discretion, may delegate implementation responsibility or portions thereof to a licensed contractor.

1 California Code of Regulations, sec. 15074(b)(6), State CEQA Guidelines.

2 California Code of Regulations, sec. 15097, State CEQA Guidelines.

Table 1
Summary of Project Impacts, Mitigation Measures, and Implementation Responsibility

Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Implementation and Verification	
			Action	Date Completed
Biological Resources				
<p>BIO-1 A qualified biological monitor shall conduct a pre-construction survey for special-status biological resources within one week prior to construction activities along the pipeline route and within the northern and southern construction staging areas. If any special-status plants are observed, "No Entry" zones will be established. If any special-status wildlife or nesting birds are observed, the biological monitor shall work directly with the construction crew to develop a plan that best avoids adverse effects.</p> <p>Rock outcrops and burrows will be inspected during pre-construction surveys, and avoided during construction activities as these may be habitat for special-status species.</p>	One week prior to construction activities	SCWD	<p>1a. A biological monitor shall perform a preconstruction survey no earlier than 7 days prior to initiation of ground or vegetation disturbance. If any special status plants are observed, "No Entry" zones will be established. If any special-status wildlife or nesting birds are observed, the biological monitor shall work directly with the construction crew to develop a plan that best avoids adverse effects.</p> <p>1b. Rock outcrops and burrows will be inspected during the pre-construction surveys. These areas should also be avoided during construction activities.</p>	
<p>BIO-2 If the proposed action is planned to occur within the general bird nesting season, a pre-construction nesting bird survey should be conducted by a qualified biologist. The nesting season is generally considered February 1 through August 31; however, these dates vary by year depending on prey availability, weather,</p>	Prior to ground-disturbing and/or pipeline construction activities	SCWD	<p>2. A biological monitor shall perform preconstruction survey before ground-disturbing and/or pipeline construction activities begin to determine the presence of an active bird nest between February 1 and August 31.</p>	

Mitigation Monitoring and Reporting Program

Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Implementation and Verification Action	Date Completed
<p>and other factors. If an active nest is discovered, the Biological Monitor will develop species- and site-specific measures to avoid effects to the nest before construction can proceed.</p>				
<p>BIO-3 Excavated holes should be covered or filled at the end of the workday. If an excavation exists at the end of the day, crews shall cover all holes and trenches with plywood/metal covers and plastic sheeting prior to leaving the area to prevent wildlife from becoming trapped within the excavation. Prior to the start of work each day, covered holes and excavated areas shall be inspected to ensure that no wildlife has fallen in overnight. If wildlife has become trapped and the construction crew is unable to safely remove it, the Biological Monitor shall be contacted for assistance.</p>	<p>During construction</p>	<p>SCWD</p>	<p>3. The SCWD Project manager or their designee shall cover all holes and trenches at the end of each day and check covered holes and excavated areas prior to the start of each day. Should wildlife become trapped, then the Project manager shall contact the Project Biological Monitor for assistance.</p>	
<p>BIO-4 All trash shall be contained in covered containers each day. Containers should be removed from the Project area and properly disposed of and/or recycled at an appropriate disposal facility. Special attention should be given to leaving no micro-trash (screws, nuts, bolts, pop-tops, washers, etc.) on site.</p>	<p>During construction</p>	<p>SCWD</p>	<p>4. The SCWD Project manager or their designee shall cover all trash containers and inspect the site at the end of each day to ensure no micro-trash is located on site.</p>	

Mitigation Monitoring and Reporting Program

Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Implementation and Verification	
			Action	Date Completed
BIO-5 Refueling of equipment and storage of fuel and other hazardous materials will not occur within 328 feet (100 meters) of perennial and seasonal streams, seeps, springs, or meadows.	During construction	SCWD	5. The SCWD Project manager or their designee shall ensure that no refueling activities or storage areas are located within 328 feet (100 meters) of perennial and seasonal streams, seeps, springs, or meadows.	
Cultural Resources				
CUL-1 In the event that archaeological resources are encountered during site excavation activities, work shall be stopped immediately or redirected away from the finds until a qualified archaeologist or Native American representative is retained to evaluate the significance of the archaeological resources. If the finds are of value, then: <ul style="list-style-type: none"> • Suspension of ground disturbances within a 30-foot radius of the discovery shall not be lifted until the qualified archaeological monitor has evaluated the finds to assess whether they are classified as historical resources or unique archaeological sites, pursuant to CEQA. • The construction contractor shall prepare all potential finds in excavated material to the point of identification. • Significant archaeological resources found shall be preserved as 	During excavation and construction activities	SCWD	6. The SCWD Project manager or their designee shall monitor excavations during construction. If resources are found, halt construction within a 30-foot radius and notify a qualified archaeologist and/or Native American representative and modify construction activities until the resource has been properly removed, catalogued, and preserved.	

Mitigation Monitoring and Reporting Program

Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Implementation and Verification Action	Date Completed
<p>determined necessary by the qualified archaeologist.</p> <ul style="list-style-type: none"> Excavated finds shall be curated at either the Los Angeles County Natural History Museum or its designee on a first-refusal basis, after which the finds shall be offered to a local museum or repository willing to accept the resources. Within 30 days of completion of the end of trenching activities, the qualified archeologist shall draft a report summarizing the finds, including the inspection period, an analysis of any resources found, and identification of the repository. Any resulting reports shall be filed with Santa Clara Water Division or their designee and with the South Central Coastal Information Center at the California State University, Fullerton. 				

Mitigation Monitoring and Reporting Program

Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Implementation and Verification	
			Action	Date Completed
Hazards and Hazardous Materials				
HAZ-1 Prior to the issuance of construction permits, SCWD shall develop an emergency response plan in consultation with the Los Angeles County Fire Department and Los Angeles County Sherriff's Department. The emergency response plan shall include, but not be limited to, the following: evacuation routes for vehicles and pedestrians, location of nearest hospitals, and fire department stations.	Prior to issuance of construction permits	SCWD	7.	Develop an emergency response plan in consultation with the Los Angeles County Fire Department and Los Angeles County Sherriff's Department.
HAZ-2 Prior to construction activities for the proposed Project that would require the diversion of traffic, SCWD shall prepare a traffic control plan and implement construction zone traffic control measures in compliance with the Work Area Traffic Control Handbook (WATCH) manual or the Manual on Uniform Traffic Control Devices (MUTCD) standards.	Prior to construction activities that require the diversion of traffic	SCWD	8.	Prepare a traffic control plan and implement construction zone traffic control measures in compliance with the Work Area Traffic Control Handbook (WATCH) manual or the Manual on Uniform Traffic Control Devices (MUTCD) standards.
HAZ-3 During construction activities, the construction contractor shall provide fire-fighting equipment, such as fire extinguishers, to the satisfaction of the Los Angeles County Fire Department and shall provide instruction on possible fire risk and the use of fire extinguishers as part of required construction-related safety training.	During construction	Construction Contractor and SCWD	9.	The construction contractor shall provide fire-fighting equipment, such as fire extinguishers, to the satisfaction of the Los Angeles County Fire Department and shall provide instruction on possible fire risk and the use of fire extinguishers as part of required construction-related safety training.

Mitigation Monitoring and Reporting Program

Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Implementation and Verification	
			Action	Date Completed
Noise				
NOS-1 The contractor shall locate all stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors. Where possible, noise-generating equipment shall be shielded from nearby noise-sensitive receptors (single family residences only) by noise attenuating buffers. Stationary noise sources located less than 200 feet from noise-sensitive receptors shall be equipped with noise reducing engine housings. Portable acoustic barriers shall be placed around noise-generating equipment that is located less than 100 feet from noise-sensitive receptors (single family residences only).	Prior to and during construction	Construction contractor and SCWD	10a. Locate all stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors. 10b. Shield noise-generating equipment, where possible, from nearby noise-sensitive receptors (single family residences only) by noise attenuating buffers. 10c. Equip stationary noise sources located less than 200 feet from noise-sensitive receptors with noise reducing engine housings. 10d. Place portable acoustic barriers around noise-generating equipment that is located less than 100 feet from single family residences.	
NOS-2 The contractor shall assure that construction equipment powered by gasoline or diesel engines have sound control devices at least as effective as those provided by the original equipment manufacturer (OEM). No equipment shall be permitted to have an unmuffled exhaust.	Prior to and during construction	Construction contractor and SCWD	11. Ensure that construction equipment powered by gasoline or diesel engines have sound control devices at least as effective as those provided by the original equipment manufacturer (OEM).	
NOS-3 The contractor shall assure that noise-generating mobile equipment and machinery are shut-off when not in use.	Prior to and during construction	Construction contractor and SCWD	12. The SCWD Project manager or their designee shall turn off equipment when not in use.	

Mitigation Monitoring and Reporting Program

Mitigation Measure	Timing/ Schedule	Implementation Responsibility	Implementation and Verification	
			Action	Date Completed
NOS-4 Residences within 200 feet of a construction area shall be notified of the construction schedule in writing, at least 24 hours prior to construction. The Santa Clarita Water Division and the contractor shall designate a noise disturbance point of contact who would be responsible for responding to complaints regarding construction noise. The point of contact shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the noise disturbance shall be conspicuously placed on construction site fences and written into the construction notification schedule sent to nearby residences.	Prior to and during construction	Construction contractor and SCWD	13a. Notify residences within 200 feet of a construction area at least 24 hours prior to construction. 13b. The SCWD Project manager or their designee shall provide a point of contact in the event of a noise complaint. 13c. The SCWD Project manager or their designee shall provide a contact number for a noise disturbance.	

Note: SCWD = Santa Clarita Water Division, Castaic Lake Water Agency

APPENDIX A

LARC Ranch Water Pipeline Project Draft Initial Study

LARC Ranch Water Pipeline

Mitigated Negative Declaration



Prepared for
Santa Clarita Water,
Division of Castaic Lake Water Agency

Prepared by:



910 Hampshire Road, Suite V
Westlake Village, CA 91361
(805) 367-5720 FAX (805) 367-5733

December 2016

Mitigated Negative Declaration

LARC Ranch Water Pipeline Project

Prepared for:

Santa Clarita Water, a Division of Castaic Lake Water Agency
26521 Summit Circle
Santa Clarita, CA 91350

Prepared by:

Meridian Consultants, LLC
910 Hampshire Road, Suite V
Westlake Village, California 91361

December 2016

Table of Contents

Section	Page
1.0 Introduction	1.0-1
2.0 Project Description	2.0-1
3.0 Environmental Setting	3.0-1
4.0 Environmental Checklist	4.0-1
5.0 Environmental Analysis.....	5.0-1
5.1 Aesthetics.....	5.0-2
5.2 Agricultural and Forestry Resources.....	5.0-5
5.3 Air Quality	5.0-8
5.4 Biological Resources	5.0-13
5.5 Cultural Resources	5.0-20
5.6 Geology and Soils.....	5.0-25
5.7 Greenhouse Gas Emission	5.0-29
5.8 Hazards and Hazardous Materials	5.0-31
5.9 Hydrology and Water Quality	5.0-36
5.10 Land Use and Planning.....	5.0-41
5.11 Mineral Resources	5.0-43
5.12 Noise	5.0-44
5.13 Population and Housing.....	5.0-51
5.14 Public Services.....	5.0-53
5.15 Recreation.....	5.0-54
5.16 Transportation and Traffic.....	5.0-55
5.17 Tribal Cultural Resources	5.0-58
5.18 Utilities and Service Systems	5.0-60
5.19 Mandatory Findings of Significance.....	5.0-63
6.0 References	6.0-1
7.0 List of Preparers	7.0-1

Appendices

- A Air Quality and Greenhouse Gas Modeling Data
- B Biological Resources Assessment
- C Cultural Resources Report
- D Noise Measurement Data

List of Figures

Figure	Page
2.1 Regional Location Map.....	2.0-3
2.2 CLWA and SCWD Service Boundary	2.0-4
2.3 Project Site Alignment.....	2.0-5
2.4 Proposed Trench Detail	2.0-6
5.1 Noise Sensor Locations.....	5.0-46

List of Tables

Table	Page
5.3-1 Maximum Daily Construction Emissions (pounds/day)	5.0-10
5.3-2 Maximum Daily Operational Emissions (pounds/day)	5.0-10
5.12-1 Ambient Noise Levels	5.0-45
5.12-2 County of Los Angeles Daily Construction Noise Limits (dBA)	5.0-45
5.12-3 Typical Maximum Noise Levels for Construction Equipment	5.0-47

1.0 INTRODUCTION

1.1 OVERVIEW

The Santa Clarita Water, a Division of Castaic Lake Water Agency (SCWD) prepared this Initial Study (IS)/Mitigated Negative Declaration (MND) to evaluate the potential environmental impacts associated with the Los Angeles Residential Community (LARC) Ranch Water Pipeline Project (proposed Project).

The SCWD prepared the 2013 Water Master Plan Update to direct future infrastructure plans within the SCWD's service area. The Board of Directors of the Castaic Lake Water Agency (CLWA), as the governing body of the SCWD, approved the 2013 Water Master Plan Update in June, 2013. The 2013 Water Master Plan Update was developed based on build-out population estimates and water demand needs for the City of Santa Clarita (City) and unincorporated portions of Los Angeles County within the SCWD service area. The Project as proposed would include new infrastructure to meet LARC demands, and to provide for water demands from other existing residential and commercial water users along the pipeline route.¹

1.2 AUTHORITY

As part of the SCWD's approval process, the Project is required to undergo an environmental review pursuant to the California Environmental Quality Act (CEQA).

The preparation of an IS/MND is governed by CEQA² and, more specifically, the State *CEQA Guidelines*,³ which guide the process for the preparation of a negative declaration (ND) or MND. Where appropriate and supportive to an understanding of the issues, reference will be made to the statute, the State *CEQA Guidelines*, or the appropriate case law.

This IS/MND, as required by CEQA, contains a project description, a description of the environmental setting, potential environmental impacts, mitigation measures for any significant effects, consistency with plans and policies, and names of preparers. The CLWA is the Lead Agency for the proposed Project and, as such, is required to conduct an environmental review to analyze the potential environmental effects associated with the proposed Project described in this IS/MND. The Board of Directors of the CLWA, as the governing body of the SCWD, will review and approve CEQA documents prepared by SCWD.

The California State Water Resources Control Board (SWRCB) as a state agency, receives federal funds from the US Environmental Protection Agency (USEPA) for the administration of the Safe Drinking Water State Revolving Fund (SRF) and the American Recovery and Reinvestment Act of 2009. The SWRCB has

1 Santa Clarita Water, A Division of Castaic Lake Water Agency (SCWD), Water Master Plan, Chapter 2, Table 2.1.

2 California Code of Regulations, sec. 15000, et seq., State CEQA Guidelines.

3 California Code of Regulations, sec. 15000, et seq.

been designated as EPA's non-federal state agency for consultation with the US Fish and Wildlife Service (Service) under the Endangered Species Act (Section 7) and with the State Historic Preservation Office (SHPO) under the National Historic Preservation Act (Section 106).

The National Environmental Policy Act (NEPA) was signed into law on January 1, 1970. NEPA applies to all federal agencies and activities that they manage, regulate or fund that affect the quality of the environment. NEPA compliance ensures that federal agencies make decisions based on an understanding of the environmental consequences of the proposed action. An important element of the law is the requirement to inform and involve the public of those decisions.

The SCWD is working with the LARC Foundation to secure grant funds from the SRF, as administered by the SWRCB to construct the proposed Project. As part of the application for SRF funding, several additional areas of environmental concern will be addressed in the IS/MND to ensure compliance with NEPA and federal cross-cutting environmental regulations.

1.3 ORGANIZATION OF THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

The content and format of this Initial Study are designed to meet the requirements of CEQA. The IS/MND consists of the proposed findings that the project, as mitigated, would have no significant impacts. The IS/MND contains the following sections and supporting studies:

- Section 1, *Introduction*, identifies the purpose and scope of the IS/MND and the terminology used in the report.
- Section 2, *Project Description*, identifies the location, background, and planning objectives of the Project and describes the Project in detail.
- Section 3, *Environmental Setting*, describes the existing conditions, surrounding land use, general plan, and existing zoning in the Project area.
- Section 4, *Environmental Checklist*, presents the checklist responses and evaluation for each resource topic.
- Section 5, *Environmental Analysis*, includes an analysis for each resource topic and identifies potential impacts of implementing the Project. It also identifies mitigation measures, if applicable.
- Section 6, *References*, identifies all printed references and individuals cited in this IS/MND.
- Section 7, *List of Preparers*, identifies the individuals who prepared this report and their areas of technical specialty.
- Appendices present data supporting the analysis or contents of this IS/MND. These include:
 - Appendix A, Air Quality and Greenhouse Gas Modeling Results

- Appendix B, Biological Resource Survey Report
- Appendix C, Cultural Resource Report
- Appendix D, Noise Measurement Data

1.4 PUBLIC AND AGENCY REVIEW OF THE DRAFT IS/MND

CEQA requires that the lead agency provide the public and agencies the opportunity to review and comment on a Draft IS/MND. As outlined by CEQA, the SCWD is providing a 30-day period for review and comment on the Draft IS/MND. Upon completion of the public and agency review period, the SCWD, as lead agency, will evaluate comments on environmental issues received from persons who reviewed the Draft IS/MND and prepare written responses. The SCWD will include these comments and responses in a Final MND along with any changes that will be reviewed and considered for adoption by the CLWA Board of Directors.

Interested individuals, organizations, responsible agencies, and other agencies can provide written comments to:

Santa Clarita Water, a Division of Castaic Lake Water Agency
26521 Summit Circle
Santa Clarita, CA 91350
Contact: Brent Payne, PE

Comments may also be sent by facsimile to (661) 286-4333 or by email to bpayne@scwater.org. Please put "LARC Ranch Water Pipeline Project" in the subject line. Agency responses should include the name of a contact person within the commenting agency.

The Draft IS/MND is available for review at the following locations:

Santa Clarita Water, a Division of Castaic Lake Water Agency
26521 Summit Circle
Santa Clarita, California 91350

City of Santa Clarita Public Library, Valencia Branch
23743 Valencia Blvd.
Santa Clarita, California 91355

City of Santa Clarita Public Library, Canyon Country
18601 Soledad Canyon Road
Santa Clarita, California 91351

Los Angeles County Stevenson Ranch Library
25950 The Old Road
Stevenson Ranch, CA 91381

In addition, the Draft IS/MND is available on the CLWA and SCWD websites at:

<https://www.clwa.org/>

<https://santaclaritawater.com/>

2.0 PROJECT DESCRIPTION

2.1 PROJECT HISTORY

Historically, LARC has extracted groundwater from two wells adjacent to Bouquet Creek that overlie the Bouquet Canyon Area of the alluvial aquifer of the Upper Santa Clara River East Subbasin. However, due to prolonged drought the aquifer can no longer support groundwater production at LARC's two wells. The aquifer is a shallow unconfined alluvial aquifer that is supported by precipitation in the Bouquet Canyon watershed and management of the Bouquet Reservoir, owned and operated by the City of Los Angeles Department of Water and Power, located approximately 8.5 miles north by northeast of the LARC Ranch property. As the drought continues and reduction in releases from Bouquet Reservoir continue, the reduction or loss of groundwater availability further downstream in this reach of the alluvial aquifer at private wells along Bouquet Creek, and further south would be expected. Other private wells along Bouquet Canyon Road depend on the precipitation in the Bouquet Canyon watershed and management of the Bouquet Reservoir to replenish the aquifer of the Upper Santa Clara River East Subbasin. LARC is currently trucking in water from a public (SCWD) hydrant located about 1.8 miles away and storing it in an existing on-site 0.36 million-gallon (MG) storage tank that is owned and operated by LARC to provide for LARC's daily water demands.

2.2 PROJECT LOCATION

The proposed Project is located in unincorporated Los Angeles County north of the City of Santa Clarita, as shown in **Figure 2.1, Regional Location**. In addition, the proposed Project is located within the northern portion of the Castaic Lake Water Agency (CLWA) and SCWD service area boundaries, as shown in **Figure 2.2, CLWA and SCWD Service Boundary**. The CLWA service area encompasses approximately 195 square miles of land in incorporated and unincorporated areas in or adjacent to the Santa Clarita Valley area of Los Angeles County, as well as into eastern Ventura County. No components of the proposed Project would be located in Ventura County. The SCWD service area encompasses approximately 55 square miles of land within the City of Santa Clarita, and certain unincorporated areas within Los Angeles County, including the proposed Project Site, as shown in **Figure 2.2**.

2.3 PROJECT DESCRIPTION

The proposed Project would include the construction of a new 12-inch ductile iron water transmission line by connecting to the nearest SCWD water line at Shadow Valley Lane and extending approximately 9,500 linear feet to a new service meter at the frontage of the LARC Ranch property (Project Site), as shown in **Figure 2.3, Project Site Alignment**. The width of the alignment would range from 30 inches for the water pipeline trench to 20 feet for the temporary closure of the Bouquet Canyon Road southbound lane. The

water pipeline alignment would traverse from southwest to the northeast within the public roadway right-of-way along Bouquet Canyon Road. The pipeline alignment was developed specifically to provide for connections by LARC and other existing residential and commercial water users along Bouquet Canyon Road, while minimizing conflicts with other existing utilities.

The project as proposed would include an on-site booster pump station and pipeline located on LARC grounds to connect and fill the existing 0.36 MG storage tank from the new service meter. The on-site pump station would include two 10 horsepower (hp) pumps within a (less than 200-square-foot) block wall building. The pump station would be approximately 10 feet high and located adjacent to similar type of walled enclosures. A new 4-inch polyvinyl chloride (PVC) pipeline would extend approximately 700 feet from a SCWD service meter to the pump station, as shown on **Figure 2.3**. Discharge pipeline from the pump would extend approximately 30 feet to connect to an existing 8-inch LARC pipeline that extends to the 0.36 MG tank and through the existing private distribution system. The pump station is planned to be owned and operated by LARC. **Figure 2.4, Proposed Trench Detail**, illustrates the horizontal layout of the proposed water pipeline beneath Bouquet Canyon Road. The proposed water pipeline would be generally located approximately 48 inches below grade, with roadway pavement and native soils above the pipeline. The pipeline may be deeper (about 10 feet deep) at certain undercrossing locations where the water pipeline must be placed below existing shallow storm drains. Bedding and backfill material would be utilized to fill around and below the proposed water pipeline. In addition to the water pipeline, air/vacuum release valves and fire hydrants would be installed aboveground at certain locations within the existing road right of way along the proposed alignment.

Pipeline Sizing Requirements

The pipeline would be sized to provide water service to LARC and other existing residential and commercial water users along the proposed pipeline route since existing demands in North Bouquet Canyon currently rely on private wells that are vulnerable to a decline or loss of available groundwater, as discussed above. The average daily demand for LARC and other existing water users along the proposed pipeline route is approximately 200 gallons per minute (gpm), with a maximum daily demand of approximately 450 gpm. The proposed pipeline would have a diameter of 12-inches to meet the maximum daily demands of 450 gpm. The on-site booster pump station is sized to pump demands for LARC to fill the existing on-site 0.36 MG storage tank during the day.

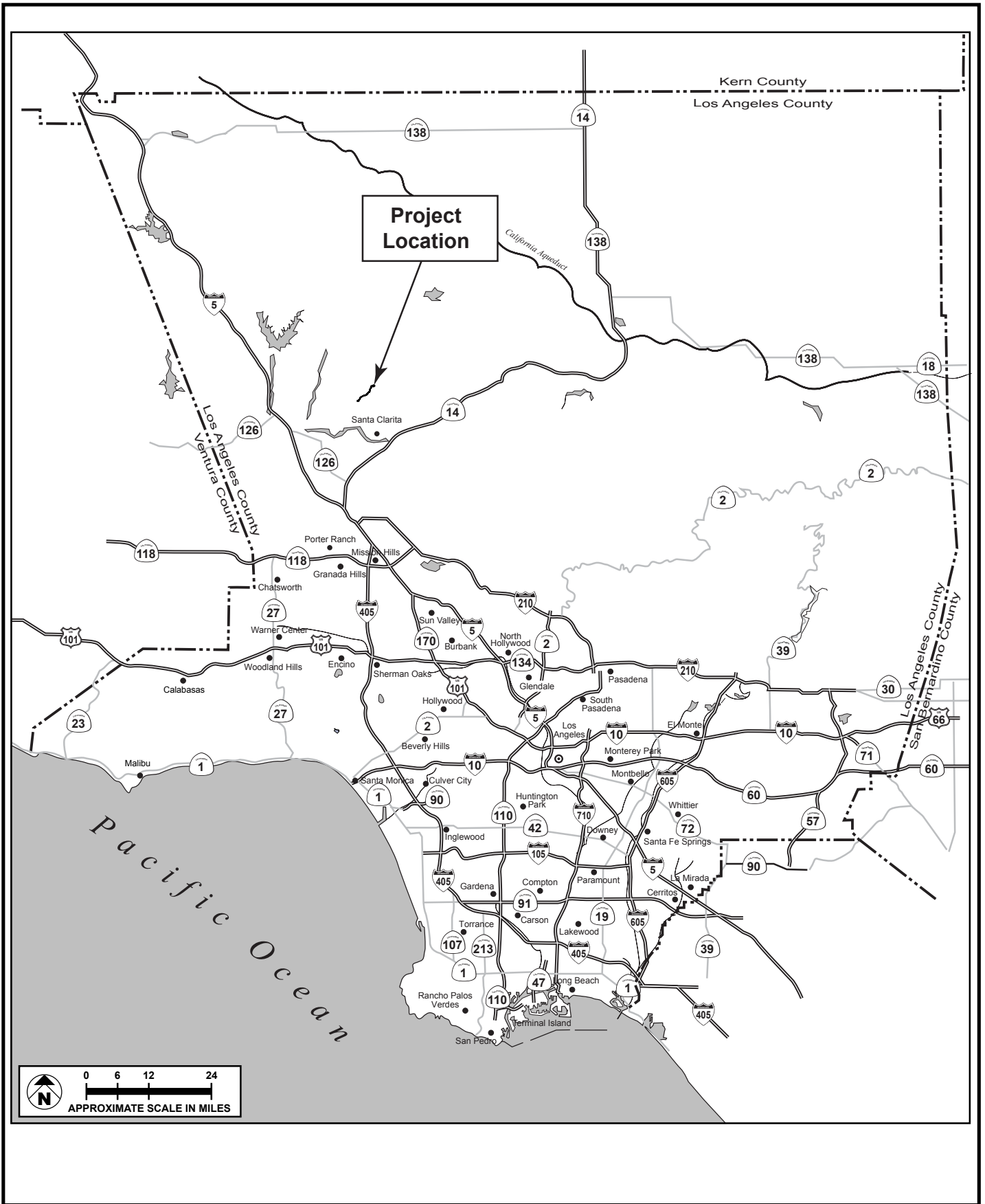
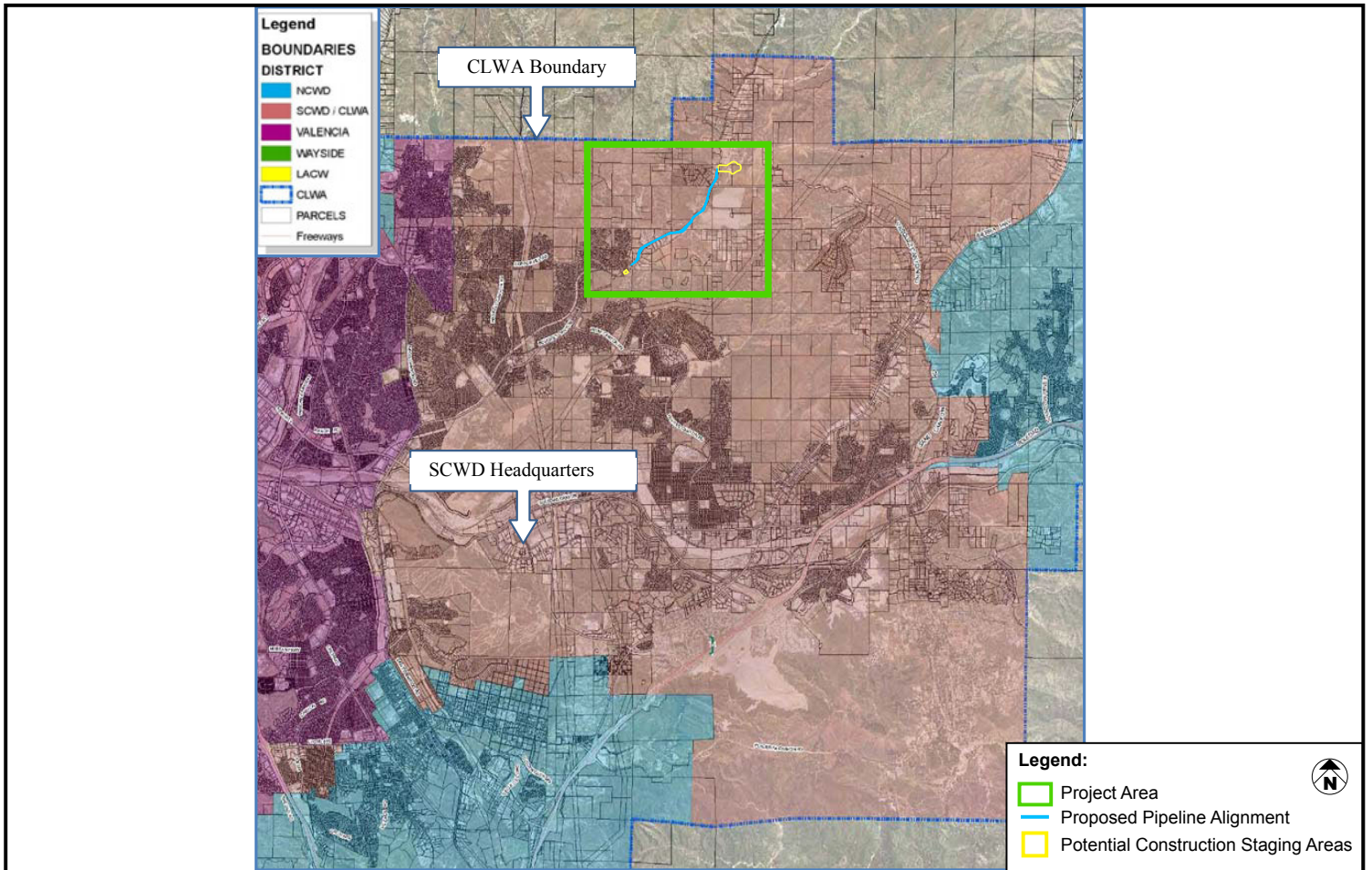


FIGURE 2.1

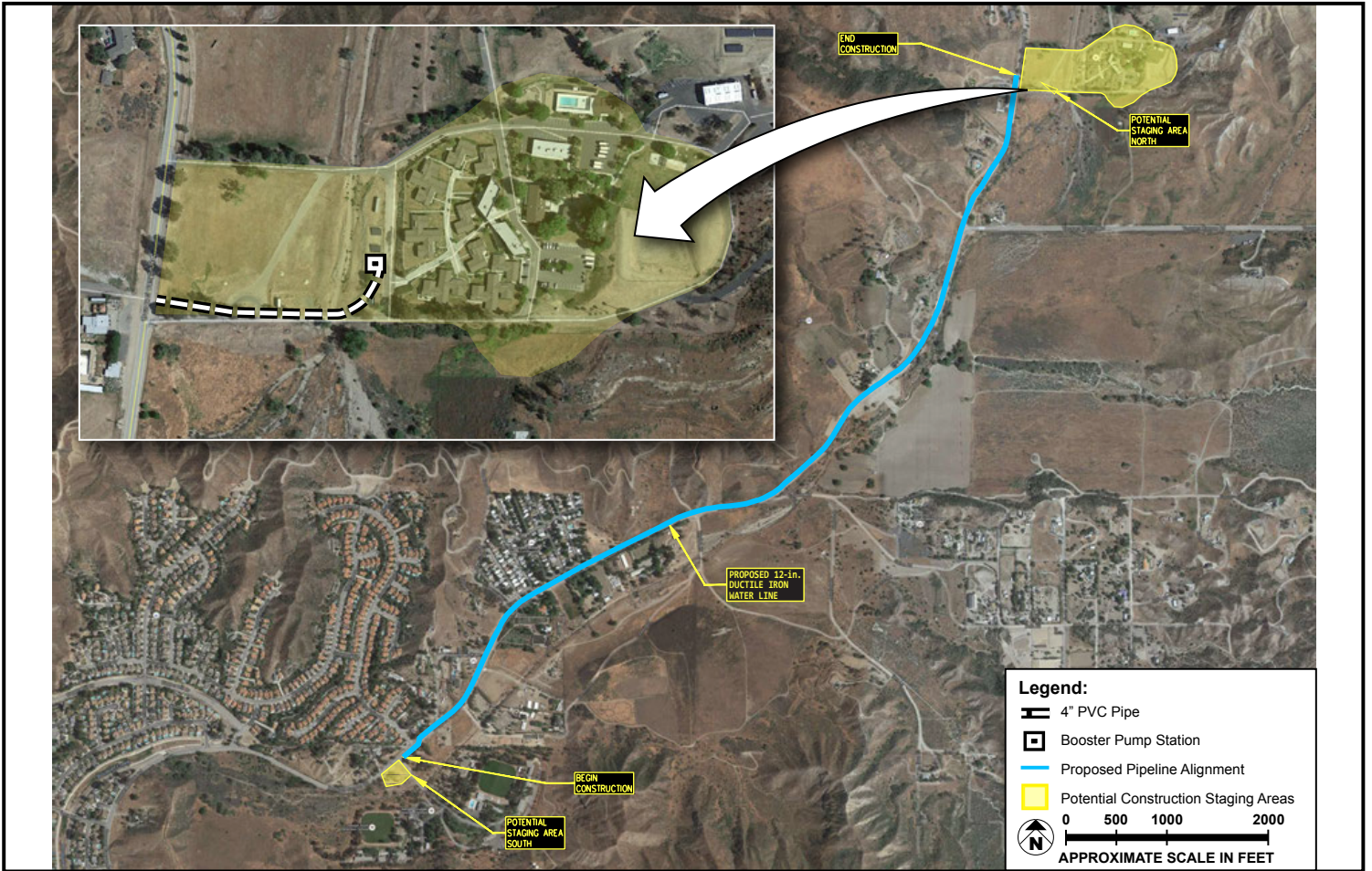
Regional Location





SOURCE: Santa Clarita Water Division of CLWA, 2012 Water Master Plan Update, April 5, 2013

FIGURE 2.2

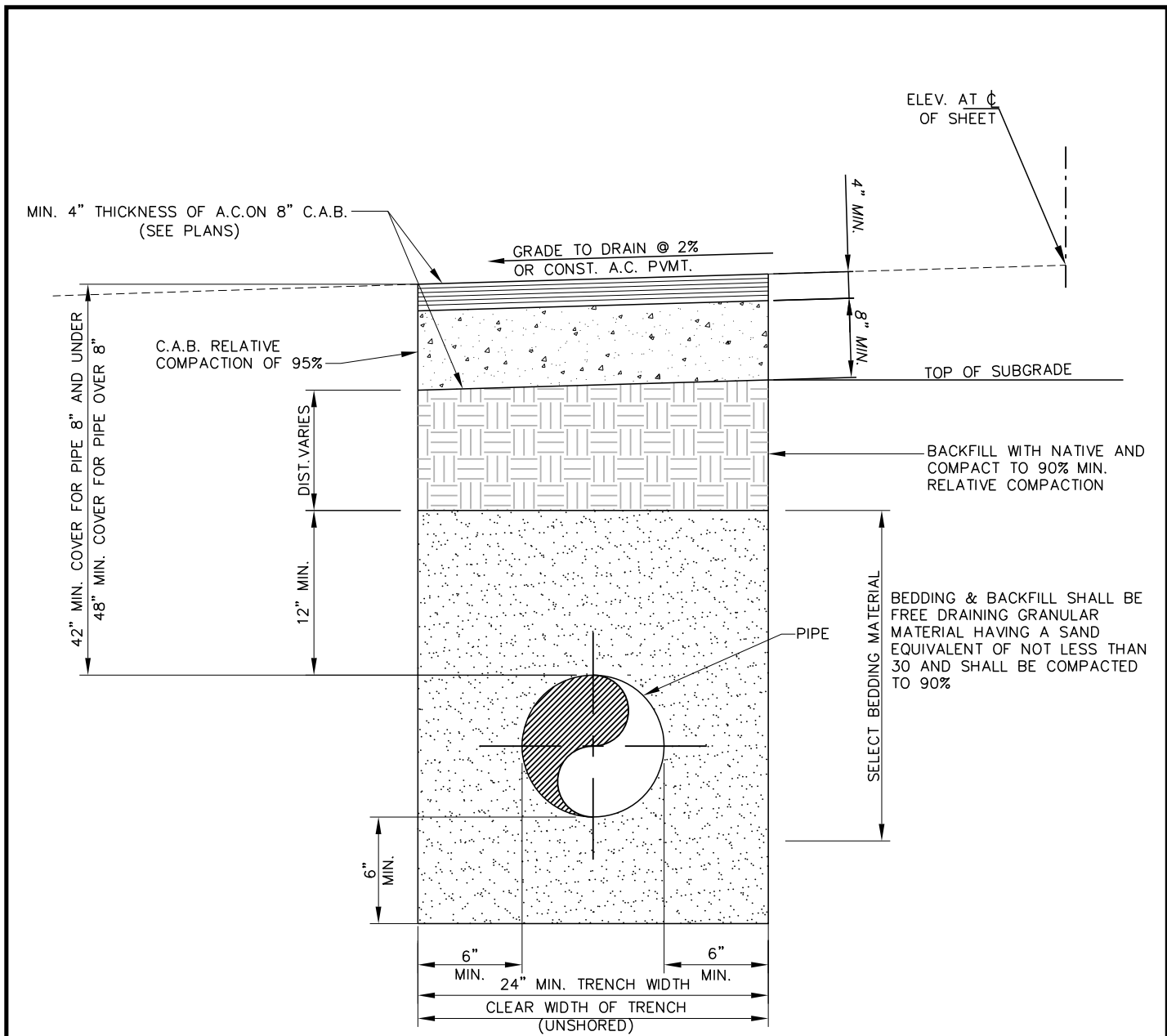


SOURCE: Santa Clarita Water Division - 2016

FIGURE 2.3

Project Site Alignment

108-001-15



NOTES:

1. EXCAVATED MATERIAL IS CONSIDERED ROCKY IF THE LARGEST DIAMETER IN ANY DIRECTION IS 4" OR LARGER.
2. IN DEDICATED RIGHT-OF-WAYS AND "PRIVATE AND FUTURE" STREETS SUBJECT TO PERMITS, COMPLY WITH PERMIT REQUIREMENTS, EXCEPT WHERE THEY ARE LESS THAN THAT OF SCWD.
3. THE REQUIREMENTS THAT MAY BE SET BY PERMITS, EASEMENTS, OR OTHER PERMISSIONS SHALL TAKE PRECEDENCE OVER THE VALUES SHOWN ON THE CHART, EXCEPT WHERE THEY ARE LESS THAN THAT OF SCWD. THE DEPTH OF COVER THE PIPE SHALL BE MEASURED VERTICALLY FROM THE TOP OF THE PIPE WITH REFERENCE TO AN APPROVED, IMPROVED GUTTER SURFACE FLOW LINE, USE THE ELEVATION AT THE CENTER OF THE STREET AS THE REFERENCE ELEVATION.

SOURCE: SCWD - 2015

FIGURE 2.4



Proposed Trench Detail

Construction

The pipeline would be installed with an excavator that would excavate a 30-inch-wide trench and temporarily store the removed soils along the trench. Work crews would place the pipe in the trench, which would be backfilled by a loader or backhoe, and then compacted to match existing grade. The temporary disturbance zone associated with pipe installation would be up to approximately 20 feet wide. The road would be restored to preconstruction conditions after installing the pipe and backfilling the trench, consistent with the requirements of the encroachment permits from the Los Angeles County Department of Public Works. Similarly, the contractor would ensure that any native or landscaped vegetation disturbed within the construction staging areas would be restored in kind upon completion.

The proposed pipeline through the LARC Ranch property would connect at the service meter at Bouquet Canyon Road, extend east beneath the existing access road, cross Bouquet Canyon creek via the existing pipeline bridge (existing pipe on bridge will be reutilized, new pipeline to be connected to both ends of existing pipe), and connect to the proposed pump station. Trenching activities would occur for the pipeline construction and minor grading for the pump station enclosure would occur west of the existing LARC Ranch structures.

During construction of the proposed Project, construction equipment would need to be stored at the end of each day. Two construction staging areas were identified along the proposed pipeline alignment: a southern staging area and a northern staging area. The southern staging area would be located adjacent to the south of Bouquet Canyon Road within Kenyon Scudder Detention School property, as shown in **Figure 2.3**. This area would be approximately 0.8 acres in size and would be utilized for the first half of construction of the proposed Project. The northern staging area would be approximately 3.5 acres in size and located at the northern most portion of the proposed pipeline alignment within LARC Ranch property. Several areas within the northern staging area would be considered for use. One area would be adjacent to the east of Bouquet Road within an open field approximately 3 acres in size, west of Bouquet Canyon Creek. Other potential staging areas within the northern staging area include the existing parking lots further to the east used for the LARC Ranch facility, and adjacent open areas to LARC Ranch buildings, totaling 0.5 acres in size. Both construction staging areas would be located away from the banks of the Bouquet Canyon Creek above the ordinary high water mark (OHWM), as defined by the physical line impressed on the bed and banks of the waterway,⁴ and would include best management practice measures (e.g., stockpile management, sanitary management, spill prevention and control) and

4 United States Army Corp of Engineers. n.d. "Definition of Waters of the United States." *33 CFR Part 328*. United States Army Corp of Engineers. 2. <http://www.nap.usace.army.mil/Portals/39/docs/regulatory/regs/33cfr328.pdf>.

temporary sediment controls such as silt fencing) to contain fuels, oils and construction related debris and prevent them from entering Bouquet Canyon Creek.

Project Schedule

Construction would last approximately 5 months, with approximately 100 linear feet of pipeline constructed each day. Construction of the proposed Project is expected to begin in mid-2017.

Work would be coordinated with the Los Angeles County Department of Public Works to ensure adequate traffic control measures along Bouquet Canyon Road. Pipeline construction would occur between 7:00 AM and 6:00 PM, Monday through Friday. Pipeline installation operations would include a backhoe, two trenchers, two off-highway trucks, and traffic control measures including delineators, signs and flaggers. Operation-related trips would generate up to 5 vehicle trips per week for the proposed pipeline infrastructure. Construction of on-site pump station would include a backhoe, crane, utility truck, welder and a water truck.

2.4 OTHER PUBLIC AGENCY REQUIRED APPROVALS

The proposed pipeline alignment would occur in the public roadway right-of-way. An encroachment and excavation permit from the County of Los Angeles Department of Public Works would be required prior to construction of the pipeline. Other permits that would be required for the proposed Project, but could be the contractor's responsibility, are General Construction Storm Water Permit from the Los Angeles Regional Water Quality Control Board and Trenching and Excavation Permit from the California Division of Occupational Safety and Health.

The following approvals and actions are required:

- Adoption of the Mitigated Negative Declaration
- Approval of the MND by the State Water Resources Water Quality Board for SRF funding
- County of Los Angeles Department of Public Works – encroachment and excavation permit for pipeline construction

3.0 ENVIRONMENTAL SETTING

3.1 EXISTING CONDITIONS

The Project Site is located in the Santa Clarita Valley in the northern portion of unincorporated Los Angeles County adjacent to the City of Santa Clarita and is approximately 35 miles northwest of downtown Los Angeles. The Santa Clarita Valley is surrounded by the Angeles National Forest to the north and west, the San Gabriel Mountains to the east, and the Santa Susana Mountains to the south. The Project Site is situated approximately 5.5 miles northeast of the center of the City of Santa Clarita in North Bouquet Canyon. Bouquet Canyon Creek is located adjacent to the east of Bouquet Canyon Road and flows southward toward its confluence with the Santa Clara River. Flows are dependent on precipitation in the Bouquet Canyon watershed and water releases from the Bouquet Reservoir.

The Project Site is located within the Bouquet Canyon Road right-of-way and would extend for approximately 9,500 linear feet, beginning at Shadow Valley Lane on the southern end and extending to the frontage of the LARC Ranch property, located at 29800 North Bouquet Canyon Road, at the northern end of the alignment. The Project Site would also include 700 linear feet of pipeline and a pump station (less than 200 square feet) on the LARC grounds. Two construction staging areas would be included as part of the Project Site, one at the southern end and one at the northern end of the alignment.

Bouquet Canyon Road is classified as a Secondary Highway from Plum Canyon Road to the Angeles National Forest boundary. Currently, Bouquet Canyon Road is a two-lane paved roadway with one northbound and one southbound lane separated by a stripped median, north of Shadow Valley Lane. At future build-out of the Santa Clarita Valley Area Plan, Bouquet Canyon Road would be improved to a 4 lane Secondary Highway with realignment in the Copper Hill Drive area.⁵

3.1.1 Pipeline

The area adjacent to Bouquet Canyon Road is disturbed due to the development of Bouquet Canyon Road, residential development, and utility infrastructure. Topography along the pipeline alignment ranges from 1,420 to 1,540 feet above mean sea level. Topography along the on-site pipeline alignment to the pump station would range from 1,540 feet to 1,550 feet above mean sea level. Hillsides adjacent to the west of Bouquet Canyon Road vary in height from 0 to 100 feet above the existing elevation of the roadway. Soils adjacent to the alignment vary from silty sand to silty gravely sand, and range from loose to very dense.⁶ Bouquet Canyon Creek bisects the LARC Ranch property and then generally follows Bouquet Canyon Road

5 County of Los Angeles Department of Regional Planning, Santa Clarita Valley Area Plan Update, Circulation Element, Table C-3, 2012.

6 BioResource Consultants Inc. (BRC), LARC Ranch Water Pipeline Project Biological Survey and Habitat Assessment, November 2015.

to the east. Some vegetation types are located along the eastern side of Bouquet Canyon Road including annual grasses and Mulefat thickets along Bouquet Canyon Creek. Trees located along Bouquet Canyon Creek include California sycamore, coast live oak, arrow willow, and blue elderberry. Vegetation along the west side of Bouquet Canyon Road primarily consists of ruderal and landscaped ornamental vegetation associated with the existing residential communities.

Single family residential uses are located to the west of Bouquet Canyon Road at Shadow Valley Lane; the Lily of the Valley Mobile Home Community is located north of Shadow Valley Lane and west of Bouquet Canyon Road; single-family residences north of Shadow Valley Lane east of Bouquet Canyon Road; several single-family residences are located near the intersection of Bouquet Canyon Road and Vasquez Canyon Road; with LARC Ranch at the northern terminus of the pipeline adjacent to the east of Bouquet Canyon Road. The closest single-family residence is located in the neighborhood adjacent to Bouquet Canyon Road and Shadow Valley Lane, where a 6-foot-high masonry wall is located between the Project Site and those specific residences to the west.

The existing land use designations for the Project Site pipeline include from south to north: Residential 5 (H5), Community Service (P), General Commercial (CG), and Rural Land 1 (RL1). The existing zoning designations for the Project Site pipeline include from north to south: Single Family Residence (R-1-5000), Light Agriculture (A1-1), Heavy Agriculture (A-2-1), and Unlimited Commercial (C-3).

The California Government Code exempts the development of water and wastewater infrastructure projects initiated by water agencies from County and City building and zoning ordinances.⁷

3.1.2 Staging Area South

The Southern Staging Area would be located on the southern corner of the intersection of Bouquet Canyon Road and the access road to the Kenyon Scudder Detention School. The staging area would be approximately 0.8 acres in size and would be located north of the Bouquet Canyon Creek, away from the banks of the creek above the OHWM. This area is generally flat with ornamental shrubbery and trees consisting of blue gum, Aleppo pine, and Peruvian pepper tree.

The land use designation for this area is P and the zoning is A-2-1.

3.1.3 Staging Areas North

The Northern Staging Area would be located within the LARC Ranch property. This staging area would be approximately 3.5 acres in size with approximately 2.5 acres that would be utilized for construction equipment. Several potential staging areas located within LARC Ranch include: the area adjacent to the

⁷ California Government Code. Section 53091(d) and €.

east of Bouquet Canyon Road and west of Bouquet Canyon Creek, the northern most parking lot, and the area just north of the community pool that contains minimal vegetation and several ornamental trees. An all dirt storm water retention basin is located within the LARC Ranch property; however, this area is fenced and would not be utilized for staging of construction equipment.

The land use designation for this area is RL1 and the zoning is A-1-1.

3.2 APPLICABLE PLANNING DOCUMENTS

3.2.1 2012 Santa Clarita Valley Area Plan

The 2012 Santa Clarita Valley Area Plan Update (SCVAP) is a component of the Los Angeles County General Plan and provides focused goals, policies, and maps to guide the regulation of development within the unincorporated portions of the Santa Clarita Valley. The SCVAP, is a long-term blueprint for development over the next approximately 20-year planning period. The SCVAP is the culmination of a unique cooperative effort with the City of Santa Clarita to work together in creating a unified vision for the Santa Clarita Valley. The Santa Clarita City Council and Los Angeles County Board of Supervisors initiated this joint planning effort, called One Valley One Vision, in recognition of a mutual need to coordinate land uses and the pace of development with the provision of adequate infrastructure, conservation of natural resources, and common objectives for the Santa Clarita Valley. Major goals of the One Valley One Vision joint planning effort were to achieve greater cooperation between the County and the City, coordinated planning for roadways, infrastructure, and resource management, and enhanced quality of life for all who live and work in the Santa Clarita Valley. The SCVAP was adopted by the Board of Supervisors on November 27, 2012. The SCVAP amendment and related zone changes took effect on December 27, 2012.⁸

3.2.2 Final 2012 Air Quality Management Plan

The South Coast Air Quality Management District (SCAQMD) has the responsibility for the management of air quality in the South Coast Air Basin. Their most recent adopted comprehensive plan is the 2012 Air Quality Management Plan (AQMP), which was adopted in February 2013 and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools.

The AQMP addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. It builds upon the approaches taken in the 2007 AQMP for the South Coast Air Basin for attainment of federal PM and ozone standards, and highlights the significant amount

8 Santa Clarita Valley Area Plan (2012)

of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act.⁹

The 2012 AQMP represents a regional blueprint for achieving healthful air on behalf of the 16 million residents of the South Coast Air Basin. Their primary task is to bring the South Coast Air Basin into attainment with federal health-based standards for unhealthy fine particulate matter (PM_{2.5}) by 2014; however, the SCAQMD has a reasonable expectation of meeting the 2023 ozone deadline. The 2012 AQMP proposed attainment of the federal 2006 24-hour PM_{2.5} standard by 2014 in the South Coast Air Basin through adoption of all feasible measures. While the 2012 AQMP focused on attainment of the 2006 24-hour PM_{2.5} standard, it has since been determined, primarily due to unexpected drought conditions, that it was impracticable to meet the standard by the original attainment year.¹⁰ Since that time, the USEPA has approved a reclassification to “serious” nonattainment for the 24-hour PM_{2.5} standard, which requires a new attainment demonstration with a new attainment deadline. The Draft 2016 AQMP was recently released for public review,¹¹ with a revised Draft 2016 AQMP document released in October.¹² Additionally, the AQMP provides local guidance for the SIP, which provides the framework for air quality basins to achieve attainment of the State and federal ambient air quality standards.

3.2.3 Santa Clarita Water Division, 2013 Water Master Plan Update

The 2013 Water Master Plan Update (WMP) represents a periodical update to the SCWD 2008 WMP. The WMP is intended to provide comprehensive analysis of the SCWD distribution system. Recommendations for capital improvements were made from the perspective of the historical data and the contemporary planning frame work available and adopted at the time of the preparation of the document.¹³

SCWD operates a retail service area of approximately 55 square miles and delivers water to over 45 percent of the population in the Santa Clarita Valley. The service area includes portions of the City and unincorporated Los Angeles County in the communities of Saugus, Canyon Country and West Newhall. Water is supplied to over 31,000 service connections by groundwater from the Alluvial Formation of the Upper Santa Clara River Sub-basin, groundwater from the Saugus Formation, and imported water from CLWA.

9 South Coast Air Quality Management District, *Final 2012 Air Quality Management Plan*, February 2013.

10 South Coast Air Quality Management District, *Revised Draft 2016 Air Quality Management Plan*, October 2016.

11 South Coast Air Quality Management District, *Draft 2016 Air Quality Management Plan*, June 2016.

12 South Coast Air Quality Management District, *Revised Draft 2016 Air Quality Management Plan*, October 2016.

13 Santa Clarita Water Division (SCWD) Water Master Plan Update (WMP), (2013).

Infrastructure operated by SCWD includes approximately 340 miles of existing pipeline, 48 water tanks with a combined storage capacity of 76 million gallons, 29 booster pump stations, 13 imported water connections, and 14 groundwater production wells.

3.2.4 2015 Urban Water Management Plan

An Urban Water Management Plan (UWMP) guides the actions of water management agencies within the CLWA service area. The 2015 UWMP for the CLWA service area includes four retail water purveyors. These retail water purveyors are the SCWD, Newhall County Water District, Valencia Water Company and Los Angeles County Waterworks District 36. Together, CLWA and the purveyors are the Santa Clarita Valley's 'water suppliers'. The 2015 UWMP includes estimates of potential supply and demand for 2020 to 2050 in five-year increments. The projected water demand in 2050 for the CLWA service area is approximately 93,900 acre-feet per year with plumbing code savings and active conservation to 122,700 acre-feet per year without plumbing code savings or active conservation.

4.0 ENVIRONMENTAL CHECKLIST

4.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry	<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards & Hazardous Materials	<input type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Noise
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Tribal Cultural Resources	<input type="checkbox"/>	Utilities/Service Systems
<input type="checkbox"/>	Mandatory Findings of Significance				

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed Project COULD NOT have a significant effect on the environment, and is eligible for a Categorical Exemption.
<input type="checkbox"/>	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Keith A. Deacon
Signature

12/13/16
Date

5.0 ENVIRONMENTAL ANALYSIS

This section provides an evaluation of the various topics considered for environmental review.

A brief explanation for the determination of significance is provided for all impact determinations except “No Impact” determinations that are adequately supported by the information sources the Lead Agency (Santa Clarita Water Division) cites in the parentheses following each question. A “No Impact” determination is adequately supported if the referenced information sources show that the impact simply does not apply to the proposed project (e.g., the project falls outside a fault rupture zone). A “No Impact” determination includes an explanation of its bases relative to project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

Explanations take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

Once the Lead Agency has determined that a particular physical impact may occur, then the checklist indicates whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant.

“Mitigated Negative Declaration: Less than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level.

Earlier analyses may be used where, pursuant to the tiering of a program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. In this case, a brief discussion should identify the following:

- a) Earlier Analysis Used. Identify and state where they are available for review.
- b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
- c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

5.1 AESTHETICS

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

Discussion

a. Less than Significant Impact.

Scenic resources typically include natural open spaces, topographic formations, and landscapes that contribute to a high level of visual quality. They also can include parks, trails, nature preserves, sculpture gardens, and similar features. Views of oak, willow, and sycamore groves are identified in the 2012 Santa Clarita Valley Area Plan (SCVAP) as a scenic view to its residents and visitors in Bouquet Canyon.¹⁴ The Project Site is located within unincorporated Los Angeles County, specifically in Bouquet Canyon. The Project would traverse a portion of Bouquet Canyon Road adjacent to Bouquet Creek from Shadow Valley Lane to the LARC Ranch property.

The Project would involve the underground installation of a 12-inch water pipeline extension along Bouquet Canyon Road. The construction of the proposed pipeline would be short term in nature and the construction equipment would be stored and fenced at either staging area overnight. The temporary use of the construction staging areas would also be short term in nature and would not permanently block or obstruct views of the surrounding hillsides in Bouquet Canyon or views of the creek. As discussed in **Section 2.3, Project Description**, the contractor would ensure that Bouquet Canyon Road be repaired and restored upon completion of the construction activities, consistent with the requirements of the encroachment permits from the Los Angeles County Department of Public Works. Similarly, as discussed in **Section 2.3**, the contractor would ensure that any native or landscaped vegetation disturbed within the construction staging areas would be restored in kind upon completion. Views of scenic vistas would remain unchanged, since the project would be located entirely underground, except for the pump station

¹⁴ Santa Clarita Valley Area Plan, *Scenic Resources*, (2012), 157.

that would be located within the existing LARC development. The on-site pump station would be in a walled enclosure (less than 200 square feet) that would be approximately 10 feet high and would be located adjacent to similar type of walled enclosures. Additionally, the elevations of the surrounding mountains, as indicated in the SCVAP, would remain to provide a scenic backdrop to the County and City residents without detriment from development of the proposed water pipeline extension.¹⁵ Therefore, impacts to scenic vistas would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. No Impact.

The nearest state highway is the Antelope Valley Freeway (State Route 14), which runs east-west approximately 3.75 miles southeast of the Project site. The nearest eligible scenic highway to the Project Site is Interstate 5 (I-5) which is classified as an “Eligible Scenic Highway-Not Officially Designated” and is located approximately 7.5 miles to the west. Construction and ultimate development of the proposed Project would not be visible from the I-5 and, as such, would not impact trees, rock outcroppings, or historic buildings within a state scenic highway.¹⁶ Therefore, no impacts to scenic resources within a scenic highway would occur.

Mitigation Measures: No mitigation measures are required.

c. Less than Significant Impact.

Trenching and pipeline connection activities would last for approximately 5 months, and as such, would be temporary and short-term in nature. Pipeline construction would occur at a rate of approximately 100 feet per day and limit the duration of impacts along the alignment. Storage of construction equipment at the staging areas would include temporary fencing, as appropriate, for security. The short-term storage of equipment would not obstruct or block views of scenic resources including views of surrounding hillsides and Bouquet Canyon Creek. As discussed in **Section 2.3**, the roadway would be repaired and restored upon completion of construction activities and the staging areas would be revegetated similar to existing conditions. Therefore, construction related aesthetic impacts would be less than significant.

The proposed 12-inch ductile iron water pipeline would connect to the existing 16-inch water line south of Shadow Valley Lane and would extend from southwest to northeast beneath Bouquet Canyon Road until the frontage of the LARC Ranch property. The water line would be located below ground within the

¹⁵ Santa Clarita Valley Area Plan, Appendix II: Maps, *Hillsides and Designated Ridgelines*, Exhibit CO-1, (2012).

¹⁶ Department of Transportation (DOT), “California Scenic Highway Mapping System”, http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed November 2015.

public roadway right-of-way and would not be visible. In addition, the proposed pipeline from Bouquet Canyon Road to the proposed pump station would be located below ground, or connect to pipeline currently suspended from the pipeline bridge and would be consistent with existing visual conditions. Furthermore, the proposed pump station would be approximately 10 feet in height and would be designed and constructed similar to the existing LARC Ranch facilities to the east. Therefore, impacts to the existing visual characteristic and quality of the site and surroundings would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. No Impact.

Glare is generated during the day from reflective surfaces. Light pollution occurs when nighttime views of the stars and sky are diminished by an over-abundance of light coming from the ground. Construction activities would take place during daylight hours, typically between 7:00 AM and 6:00 PM, Monday through Friday. Potential glare generated during construction activities would be consistent with existing vehicle traffic traveling along Bouquet Canyon Road. Pipelines would be located below ground and would not generate any glare. Additionally, the pump station would be designed consistent with LADPW standards and would include nonreflective surfaces. Therefore, no glare impacts would occur.

As previously discussed, no construction activities would occur during nighttime hours. Accordingly, no additional sources of nighttime lighting would be added to the existing lighting environment, except as may be required for temporary traffic control measures. There would be no permanent light or glare upon completion of the proposed Project because the water pipeline would be located beneath the paved street. Additionally, no sources of nighttime lighting would be included as part of the pump station enclosure. Therefore, no nighttime lighting impacts would occur.

Mitigation Measures: No mitigation measures are required.

5.2 AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
AGRICULTURE AND FORESTRY RESOURCES – 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 nonagricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forestland or conversion of forestland to nonforest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature could result in conversion of Farmland, to nonagricultural use or conversion of forestland to nonforest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. No Impact.

Bouquet Canyon Road is not currently used for agricultural operations. According to the California Department of Conservation “Los Angeles County Important Farmland 2012” map, the proposed staging areas are designated as “Urban and Built-Up Land” or “Other Land.” The proposed water pipeline intersects areas designated as “Other Land” and “Grazing Land.”¹⁷ None of the Project Site is designated as Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. Accordingly, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

¹⁷ California Department of Conservation (DOC), Division of Land Resource Protection, Los Angeles County Important Farmland 2012, (January 2015) and “California Important Farmland Finder”, <http://maps.conservation.ca.gov/ciff/ciff.html>. Accessed November 2015.

b. No Impact.

As identified in **Figure 2.3**, the southern staging area is not zoned for agricultural uses. The northern staging area on the LARC Ranch property is zoned as A-1-2. However, no agricultural operations occur within the LARC Ranch property which includes the northern staging area. Furthermore, the use of the property to store construction equipment would be temporary and would not result in a permanent conflict with the existing zoning designation. Therefore, no impacts would occur.

The proposed Project is not subject to a Williamson Act contract.¹⁸ Accordingly, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

c. No Impact.

None of the Project area is currently designated as, or located near land designated for, forest, timberland, or timberland zoned Timberland Production.¹⁹ The land uses surrounding the Project Site include rural lands, urban residential, commercial, and public/semi-public uses. Therefore, the proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

d. No Impact.

As previously discussed, the Project Site is not located within a forest area. All construction activities would occur within the public roadway right-of-way or on LARC grounds and the storage of construction equipment would not result in the loss of existing trees. None of the proposed construction activities would result in the loss of forestland or in the conversion of forestland to nonforest use.²⁰

Projects are subject to the Farmland Protection Policy Act (FPPA) requirements if they may irreversibly convert farmland (directly or indirectly) to non-agricultural use and are completed by a federal agency or with assistance from a federal agency.²¹ The proposed Project does not contain farmland within its boundaries, and as such, is not subject to the FPPA. Also, according to the National Forest Locator Map,

18 California Department of Conservation (DOC), Division of Land Resource Protection, State of California Williamson Act Contract Land Statewide Map, (2012), ftp://ftp.consrv.ca.gov/pub/dlrp/wa/2012%20Statewide%20Map/WA_2012_11x17.pdf. Accessed November 2015.

19 Santa Clarita Valley Area Plan, Appendix II: Maps, *Generalized Land Use and Limited H5 Districts*, Exhibit L-2, (2012).

20 Santa Clarita Valley Area Plan, Appendix II: Maps, *Generalized Land Use and Limited H5 Districts*, Exhibit L-2, (2012).

21 US Department of Agriculture, Farmland Protection Policy Act, http://www.nrcs.usda.gov/wps/portal/nrcs/detail/?cid=nrcs143_008275. Accessed November 2015.

the closest National Forest is the Angeles National Forest to the north and west of the Project Site, but, no part of the proposed Project itself is located within any National Forests.²² Accordingly, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

e. No Impact.

As previously noted, the Project site is not designated as either farmland or forestland and does not involve farming or forestry operations. Furthermore, there are no agriculture or forestry operations in the vicinity of the Project Site. Therefore, no such land would be converted and no impacts would occur.

Mitigation Measures: No mitigation measures are required.

²² US National Forest, Locator Map, (2015), <http://www.fs.fed.us/locatormap/>. Accessed November 2015.

5.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. Less than Significant Impact.

The SCAQMD is the regional agency that provides air quality guidance with jurisdiction over the entire County. The most recently adopted comprehensive plan applicable to the Project is the 2012 AQMP.²³ The 2012 AQMP was implemented to meet the federal and State emission standards identified in both Clean Air Acts.

The proposed Project would supplement current water supplies to the LARC Foundation and existing water users located near Bouquet Canyon Road. This water supply would not directly or indirectly induce population growth within the County because the pipeline extension would serve an existing community at the LARC Foundation that relies on groundwater and potentially other existing residential and commercial water users along this route. As discussed in the analysis in Section 5.3(b), the emissions generated by the proposed Project would not exceed applicable project emissions thresholds, and as such, would not conflict with the SCAQMD air quality management plan or the federal or State Clean Air Acts. Therefore, the Project would not conflict with the goals of the SCAQMD 2012 or Draft 2016 AQMP, and impacts would be less than significant.

²³ South Coast Air Quality Management District, *Final 2012 Air Quality Management Plan*, February 2013.

Mitigation Measures: No mitigation measures are required.

b. Less Than Significant Impact.

The Project Site is located in the San Gabriel Mountains (Source Receptor Area 15) within the South Coast Air Basin, which is designated as nonattainment for ozone and fine particulate matter (PM_{2.5}) under the National Ambient Air Quality Standards (AAQS), as well as particulate matter (PM₁₀) under the California Air Quality Standards.²⁴ The SCAQMD established maximum mass daily thresholds of criteria air pollutants and ozone precursors to prevent air quality violations during construction and operation of development projects under CEQA.²⁵ Maximum daily emissions of air pollutants that would be generated during construction and operation of the Project were compared to the applicable thresholds to determine the likelihood of potential air quality impacts.

Construction Emissions

The California Emissions Estimator Model (CalEEMod) was used to prepare estimates of Project emissions. The analysis assumes that the 9,500 linear feet of proposed pipeline extension would be completed in approximately five months, with approximately 100 linear feet of pipeline constructed each day. The construction equipment inventory for the proposed Project is anticipated to include the use of two off-highway trucks, a backhoe, and two trenchers for trenching activities. All construction equipment was assumed to meet CARB Tier 2 fleet requirements, and fugitive dust control techniques compliant with SCAQMD Rule 403 were applied to construction activities (i.e., watering of storage piles and disturbed surfaces, maintaining vehicle speeds under 15 miles per hour).

The maximum daily emissions during Project construction are presented in **Table 5.3-1, Maximum Daily Construction Emissions (pounds/day)**. Maximum daily emissions of air pollutants that would result from construction activities were estimated to be 4.3 pounds per day of reactive organic gases (ROG), 37.9 pounds per day of nitrous oxides (NO_x), 24.7 pounds per day of carbon monoxide (CO), 0.05 pounds per day of sulfur dioxide (SO₂), 2.5 pounds per day of PM₁₀, and 2.1 pounds per day of PM_{2.5}. Each of these estimates is compared to the applicable SCAQMD mass daily emission thresholds for construction activities in **Table 5.3-1**. Maximum daily estimated emissions would be below the SCAQMD threshold for all modeled air pollutants. Accordingly, emissions of air pollutants during Project construction would not violate any air quality standard or contribute substantially to an existing air quality violation. Therefore, impacts would be less than significant.

²⁴ California Environmental Protection Agency (EPA), Air Quality Standards and Area Designation, (2013), <http://www.arb.ca.gov/desig/adm/adm.htm>.

²⁵ South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, March 2015, http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2_

Table 5.3-1
Maximum Daily Construction Emissions (pounds/day)

Year	ROG	NOx	CO	SOx	PM10	PM2.5
2017	4.3	37.9	24.7	0.05	2.5	2.1
<i>SCAQMD Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<i>Exceeds Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Air Emissions Model Results are presented in Appendix A.

Note:

Abbreviations: CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; ROG = reactive organic gases; SOx = sulfur oxides.

Operational Emissions

Operational emissions would be generated by routine maintenance vehicle trips to service the water meter and pipeline and from electricity demands from pump operation. The analysis of daily operational emissions has been prepared using the data, methodologies, and current motor vehicle emission factors in the CalEEMod model. For a conservative analysis, a total of 1 vehicle trip was assumed to be generated each week during operation of the Project. **Table 5.3-2, Maximum Operational Emissions (pounds/day)**, provides the maximum daily operational emissions. As indicated in **Table 5.3-2**, the proposed Project would not exceed the SCAQMD operational emission thresholds. Therefore, impacts would be less than significant.

Table 5.3-2
Maximum Operational Emissions (pounds/day)

Source	ROG	NOx	CO	SOx	PM10	PM2.5
Maximum	0.01	0.0	0.1	0.0	0.0	0.0
<i>SBCAPCD Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<i>Exceeds Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Air Emissions Model Results are presented in Appendix A.

Note:

Abbreviations: CO = carbon monoxide; NOx = nitrogen oxides; PM10 = particulate matter less than 10 microns; PM2.5 = particulate matter less than 2.5 microns; ROG = reactive organic gases; SOx = sulfur oxides.

Mitigation Measures: No mitigation measures are required.

c. Less than Significant Impact.

Los Angeles County is in nonattainment for ozone, PM10, and PM2.5 at the State level. Projects that do not exceed the project-level emission thresholds would not contribute to cumulatively significant air quality impacts. As shown in **Table 5.3-1** and **Table 5.3-2**, all emissions associated with the proposed Project would not exceed the SCAQMD threshold values and would, therefore, not result in a cumulatively considerable net increase of any criteria pollutant. Accordingly, the proposed Project would not contribute to a cumulatively considerable net increase in ozone, PM10, or PM2.5. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. Less than Significant Impact.

Sensitive receptors are defined as schools, residential homes, hospitals, resident care facilities, daycare centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. The proposed water pipeline would be constructed north along Bouquet Canyon Road from Shadow Valley Lane to the frontage of the LARC Foundation site. There are numerous residences situated along Bouquet Canyon Road within 50 to 75 feet of the proposed pipeline route. However, approximately 100-foot segments of the pipeline would be completed in each day, and thus the proximity of construction equipment would not remain nearby a single residence for more than a week at most. Furthermore, maximum daily emissions are substantially below applicable SCAQMD thresholds. Therefore, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

e. Less Than Significant Impact.

According to the California Air Resources Board's *Air Quality and Land Use Handbook*,²⁶ odors are the most common sources of air pollution complaints and as with other types of air pollution, a number of factors need to be considered when determining potential effects on land use. Land uses that are more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants.

²⁶ California Environmental Protection Agency (EPA), California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, 2005, 32.

Pipeline trenching activities and pump station construction activities associated with the proposed Project would generate odors from heavy-duty equipment exhaust including diesel and gasoline. Odors associated with diesel and gasoline fumes are transitory in nature and would not create objectionable odors affecting a substantial number of people. The impacts from these odors would be short term and would cease upon the completion of the pipeline. Furthermore, the construction of the water pipeline would occur for less than one week when near a sensitive receptor. Operational impacts would consist of emissions from a single vehicle trip on weekdays and are well below the significance threshold. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact	
BIOLOGICAL RESOURCES – Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. Less than Significant Impact with Mitigation.

Special-status species include those listed as endangered or threatened under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA), species otherwise given certain designations by the California Department of Fish and Wildlife (CDFW), and plant species listed as rare by the California Native Plant Society (CNPS).

A biological assessment for the proposed Project was completed to determine the presence or absence of any sensitive biological resource (see **Appendix B**).²⁷ Standard database searches were conducted prior to the survey of the Project area, including that of the California Natural Diversity Database (CNDDDB). A reconnaissance survey was conducted in October 2015 as part of the biological assessment and covered the two potential staging areas and along the proposed water pipeline alignment with a 100-foot buffer. No special-status plants or animal species were observed during the survey of the proposed pipeline route and staging sites; however, potential habitat for sensitive species was identified in the Project area within a 3-mile radius.

Potentially suitable grassland habitat exists along the proposed alignment between Hayfork Road and Vasquez Canyon Road for several special-status plant species including slender mariposa-lilies (*Calochortus clavatus* var. *gracilis*) and Peirson's morning-glory (*Calystegia peirsonii*). A search of the CNDDDB identified a population of slender mariposa-lily approximately 0.6 miles east of the Project area and several additional sites located within 3 miles of the Project site. Based on the presence of suitable habitat and records within the Project vicinity, slender mariposa-lily has a moderate potential to be present within the Project area. A search of the CNDDDB identified a population of Peirson's morning-glory approximately 1.6 miles east of the Project area. Peirson's morning-glory has a moderate potential to be present within the Project area.

Potentially suitable habitat exists along the pipeline alignment and within and near the pump station and construction staging areas for several wildlife species including: the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), a federally- and state-listed endangered species and CDFW fully protected species, Cooper's hawk (*Accipiter cooperii*), a CDFW watch list species, southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) a CDFW watch list species, white-tailed kite (*Elanus leucurus*), a CDFW fully protected species, California horned lark (*Eremophila alpestris actia*), an CDFW watch list species, loggerhead shrike (*Lanius ludovicianus*), an CDFW species of special concern, spotted bat (*Euderma maculatum*), a CDFW species of special concern, and western mastiff bat (*Eumops perotis californicus*), a CDFW species of special concern.

Suitable habitat exists for unarmored threespine stickleback within Bouquet Canyon Creek. Bouquet Canyon Creek was dry at the time of the survey; however, two recent CNDDDB records for unarmored threespine stickleback are present adjacent to the Project alignment within Bouquet Canyon Creek. Due to the presence of suitable habitat and nearby CNDDDB records, the unarmored threespine stickleback has a potential to occur within the Project area when water is present within Bouquet Canyon Creek. It should be noted that construction activities would take place within the Bouquet Canyon roadway right-of-way

²⁷ BioResource Consultants Inc. (BRC), *LARC Ranch Water Pipeline Project Biological Survey and Habitat Assessment*, November 2015.

and not within or adjacent to Bouquet Canyon Creek. The pipeline from Bouquet Canyon Road through LARC Ranch would be located below ground and within an existing bridge structure that crosses over the Bouquet Creek. The construction of the pump station would be located outside of the OHWM and the 100-year floodplain. Accordingly, there would be no direct impacts to unarmored threespine stickleback within Bouquet Canyon Creek.

Suitable nesting habitat for Cooper's hawks and white-tailed kites were observed within the riparian habitat near the Project area located along side Bouquet Canyon Creek, east of the proposed pipeline alignment. Cooper's hawks and white-tailed kites have been documented approximately 2 miles west of the Project area. Due to the presence of suitable nesting habitat and nearby eBird records, Cooper's hawks and white-tailed kites have a potential to occur within the Project area.

Marginal nesting and foraging habitat for southern California rufous-crowned sparrow is present within the annual grassland and chaparral habitat present within the Project area that was surveyed. A search of the CNDDDB and eBird databases identified a population approximately 0.4 miles northwest of the Project area. Based on the presence of nearby nesting records and marginal habitat, there is a low potential for Southern California rufous-crowned sparrows to occur within the Project area.

Suitable annual grassland habitat for California horned larks is present within the Project area. A search of the eBird database identifies several occurrences of California horned larks near the Lombardi Farm and near the intersection of Bouquet Canyon Road and Vasquez Canyon Road. Due to the presence of suitable nesting habitat and nearby eBird records, the California horned lark has a potential to occur within the Project area.

Suitable nesting and foraging habitat is located within the Project area for loggerhead shrikes. A CNDDDB occurrence is located on the north side of Bouquet Canyon Road south of Lombardi Farms, and several eBird occurrences are present along the intersection of Bouquet Canyon Road and Vasquez Canyon Road. Due to the presence of suitable nesting habitat and nearby CNDDDB and eBird records, the loggerhead shrike has a potential to occur within the Project area.

Habitat for the spotted bat and western mastiff bat are present within the Project area. These species are found in a variety of habitats including arid deserts and grasslands and forage near water and along washes. The Project area provides suitable foraging for these species but lacks suitable roosting locations. The spotted bat and western mastiff bat have low potential to occur on site while foraging and no potential to roost within the Project area. Since Project-related activities would be limited to daylight hours, neither species is expected to be impacted.

Suitable bird nesting habitat is present along the proposed pipeline route and within the northern and southern staging areas. Nesting birds are protected under the Migratory Bird Treaty Act (MTBA) and the California Department of Fish and Game Code and could be impacted by Project activities when construction occurs near nesting areas during the nesting season (February through August). Due to the proximity of Project construction activities in relation to the identified species above, the Project would have the potential for a significant impact on these identified species.

Mitigation Measures: The following mitigation measures would reduce impacts to less than significant.

BIO-1 A qualified biological monitor shall conduct a pre-construction survey for special-status biological resources within one week prior to construction activities along the pipeline route and within the northern and southern construction staging areas. If any special-status plants are observed, "No Entry" zones will be established. If any special-status wildlife or nesting birds are observed, the biological monitor shall work directly with the construction crew to develop a plan that best avoids adverse effects.

Rock outcrops and burrows will be inspected during pre-construction surveys, and avoided during construction activities as these may be habitat for special-status species.

BIO-2 If the proposed action is planned to occur within the general bird nesting season, a pre-construction nesting bird survey should be conducted by a qualified biologist. The nesting season is generally considered February 1 through August 31; however, these dates vary by year depending on prey availability, weather, and other factors. If an active nest is discovered, the Biological Monitor will develop species- and site-specific measures to avoid effects to the nest before construction can proceed.

BIO-3 Excavated holes should be covered or filled at the end of the workday. If an excavation exists at the end of the day, crews shall cover all holes and trenches with plywood/metal covers and plastic sheeting prior to leaving the area to prevent wildlife from becoming trapped within the excavation. Prior to the start of work each day, covered holes and excavated areas shall be inspected to ensure that no wildlife has fallen in overnight. If wildlife has become trapped and the construction crew is unable to safely remove it, the Biological Monitor shall be contacted for assistance.

BIO-4 All trash shall be contained in covered containers each day. Containers should be removed from the Project area and properly disposed of and/or recycled at an appropriate disposal facility. Special attention should be given to leaving no micro-trash (screws, nuts, bolts, pop-tops, washers, etc.) on site.

BIO-5 Refueling of equipment and storage of fuel and other hazardous materials will not occur within 328 feet (100 meters) of perennial and seasonal streams, seeps, springs, or meadows.

If construction activities occur outside of the breeding season (February through August), then potential impacts on sensitive bird species would be less than significant. If construction activities occur during the breeding season, implementation of mitigation measures **BIO-1** through **BIO-5** would reduce potentially significant impacts to less than significant.

b. Less than Significant Impact.

Riparian habitats line the banks of rivers, streams, creeks, and ponds and consist of a variety of vegetation types.²⁸ These habitats preserve water quality by filtering sediment and some pollutants from runoff before it enters the water body, protect stream banks from erosion, provide food and habitat for fish and wildlife, and preserve open space and aesthetic values.

The 12-inch water pipeline would be constructed within the existing western portion of the right-of-way along Bouquet Canyon Road. Located to the south of the Project location, close to the road, is Bouquet Creek which is currently dry due to the existing drought. The on-site pipeline associated with the on-site pump station would be connected to pipeline currently installed in an existing bridge structure that crosses over the Bouquet Creek. The pump station would be placed on LARC Ranch property, outside of the active river channel, adjacent to existing solar panels which are located on previously disturbed and vacant land. Therefore, there would be no impact to riparian habitats or other sensitive natural community along the length of the Project Site and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c. No Impacts.

Section 404 of the Federal Clean Water Act authorizes the State of California to certify that Federal permits and licenses do not violate the State's water quality standards. Executive Order 11990 aids in the protection of wetlands existing or under evaluation by the U.S. Army Corps of Engineers.

28 Santa Valley Clarita Area Plan, Biological Resources, 2012.

Evaluating Section 404 and Executive Order 11990, the National Wetlands Mapper does not show any seasonally wet areas, federally protected streams or wetlands or other water bodies on or adjacent to the proposed Project location.²⁹ Therefore, no impacts to wetlands would occur.

Mitigation Measures: No mitigation measures are required.

d. Less than Significant Impact with Mitigation.

Construction of the proposed Project would last approximately 5 months. All activities would occur within existing paved roadway right-of-way, except for construction of the on-site pump station and pipeline on LARC grounds. Construction activities would not result in the removal of any trees. As stated above, the proposed pipeline would be constructed within the Bouquet Canyon roadway right-of-way and not within or adjacent to Bouquet Canyon Creek. The on-site pipeline associated with the on-site pump station would be connected to pipeline currently installed in an existing bridge structure that crosses over the Bouquet Creek and is located above the OHWM. At the completion of construction, the pipeline would be located belowground and would not interfere with the movement of wildlife. Additionally, the pump station would be located on existing LARC Ranch property, adjacent to the south and west of existing LARC Ranch facilities. The construction of the pump station enclosure would not remove any existing trees or substantially degrade vegetation within the immediate area. As discussed in Impact 5.4a, the Project could have the potential to disturb native nesting bird species; however, mitigation measures **BIO-1** and **BIO-2** would reduce potential impact to nesting bird species to less than significant.

Mitigation Measures: Implementation of mitigation measures **BIO-1** and **BIO-2** would reduce potentially significant impacts.

e. No Impact.

Pipeline and pump station construction and staging activities would not result in the removal of any trees. According to the SCVAP, the Project site is not located within a significant ecological area.³⁰ The proposed Project would not interfere or conflict with any local policies or ordinances in protecting biological resources. Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

²⁹ US Fish and Wildlife Service (USFWS), National Wetlands Mapper, 2015, <http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed November 2015.

³⁰ Santa Clarita Valley Area Plan, *Conservation and Open Space Element*, 2012, 146 and Figure CO-5.

f. No Impact.

The SCVAP encourages water conservation policies, promoting infiltration through pervious surfaces, use of native landscaping, limiting use of invasive landscape species, and acquisition of open space in the watershed for conservation purposes, to help protect the quality of the Santa Clarita Watershed for habitat conservation purposes.³¹ Additional water usage and landscaping would not be a direct impact of this Project. Therefore, the proposed Project would not interfere with any of the SCVAP conservation plans and no impacts would occur.

Mitigation Measures: No mitigation measures are required.

31 Santa Clarita Valley Area Plan, *Conservation and Open Space Element*, 2012, 142.

5.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
CULTURAL RESOURCES – Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. Less than Significant Impact.

Meridian Consultants performed a cultural resources assessment of the Project staging areas and proposed pipeline alignment (see **Appendix C**), which constitute the proposed Project’s area of potential effect (APE). This investigation is part of the environmental review process required under CEQA and Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR 800, for the proposed Project. The purpose of this study was to assess whether any cultural resources would be affected by the implementation of the proposed Project in accordance with CEQA and Section 106 of the NHPA.

A “historical resource” under CEQA, as defined by California Public Resources Code (PRC) Part 5020.1(j) is any object, building, site, area, place, record, or manuscript that is historically or archaeologically significant, or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Guidelines for CEQA further define a “historical resource” as any resource listed in or determined eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the Lead Agency. Additionally, a resource would be automatically listed in the California Register if it is listed in the National Register of Historic Places or formally determined eligible by an agency for listing in the National Register. Under Section 106 of the NHPA, a “historic property” is defined as a resource that is listed in or determined by the lead federal agency to be eligible for listing in the National Register. The National Register recognizes properties that are historically significant at the local, state, and national level and uses criteria for evaluation that are similar to those of the California Register:

- Associated with events that have made a significant contribution to the broad patterns of our history (Criterion A)
- Associated with the lives of persons significant in our past (Criterion B)
- Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values (Criterion C)
- Has yielded, or may be likely to yield, information important in history or prehistory (Criterion D)

A records search at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton was conducted to identify historic and archeological resources within the APE and within 1 mile of the proposed Project.³² This search included a review of the California Historical Resources Inventory System, National Register of Historic Places, California Register of Historical Resources, California Inventory for Historic Resources, and California Historical Landmarks. The search also located relevant reports of previous cultural resource investigations within the search area of the Project Site.

The records search resulted in the identification of 13 previously recorded cultural resource studies within 1 mile of the APE. Of these, one previously recorded historic resource is located within 1 mile of the proposed Project APE, the Bouquet Creek Bridge. Located on Vasquez Canyon Road, approximately 150 feet east of its intersection with Bouquet Canyon Road, this bridge is a simple A-frame truss bridge constructed in 1942. The bridge was evaluated as part of the California Department of Transportation's Historic Bridges Inventory Update in 2004 and determined at that time to be ineligible for listing in the National Register of Historic Places or for designation as a historical resource under CEQA.³³

A survey of the Project APE was performed in October 2015.³⁴ The field assessment included a pedestrian survey of the staging areas and a vehicular/windshield survey of the pipeline alignment along Bouquet Canyon Road. As such, the entire APE was examined for any evidence of prehistoric or historic (i.e. greater than 50 years) human activities. These efforts resulted in negative findings, other than some evidence of modern refuse dumping. The modern refuse dumps were sporadic concentrations located along Bouquet Canyon Road and the southern staging area. No features or objects greater than 50 years of age were identified within the APE during the investigation.

The search of existing records at the SCCIC resulted in the identification of no previously recorded cultural resources within the proposed Project APE. While one previously identified resource, Bouquet Creek

32 On October 14, 2015, Meridian Consultants Cultural Resource Specialist Mitch Evans, conducted a records search at SCCIC.

33 Christopher McMorris, Caltrans Historic Bridge Inventory Update: Timber Truss, Concrete Truss, and Suspension Bridges (Submitted to State of California Department of Transportation Environmental Program, 2004).

34 On October 21, 2015, Meridian Consultants Cultural Resource Specialist Mitch Evans, performed a field survey of the Project area.

Bridge, is located adjacent to the Project APE, it was determined ineligible for listing in the National Register of Historic Places or for designation as a historical resource under CEQA. Additionally, the field survey of the Project APE by Meridian Consultants resulted in the identification of no additional historic resources. Therefore, no adverse impact to historic resources would occur and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. Less than Significant Impact with Mitigation.

A Phase I Cultural Resources Assessment (see **Appendix C**) for the proposed Project APE was performed to determine the presence of archaeological resources that may be impacted as a result of project implementation. As part of the Cultural Resources Assessment, a records search was performed for the APE, a pedestrian survey was performed of the proposed staging areas, and a vehicular/windshield survey was conducted along Bouquet Canyon Road where it corresponds to the proposed pipeline alignment. No archaeological resources were identified within the APE during the pedestrian survey.

While the Cultural Resources Assessment did not identify any archaeological resources within the proposed Project APE, given the presence of previously recorded archaeological sites within 1 mile of the APE, there is potential for the APE to contain subsurface archaeological remains. The majority of ground disturbing work is proposed to take place within either the existing roadway or LARC Ranch property, where the potential for encountering intact archaeological remains is low. However, given the presence of other archaeological resources in the area, impacts would be potentially significant.

Mitigation Measures: The following mitigation measure would reduce archaeological impacts to less than significant.

CUL-1: In the event that archaeological resources are encountered during site excavation activities, work shall be stopped immediately or redirected away from the finds until a qualified archaeologist or Native American representative is retained to evaluate the significance of the archaeological resources. If the finds are of value, then:

- Suspension of ground disturbances within a 30-foot radius of the discovery shall not be lifted until the qualified archaeological monitor has evaluated the finds to assess whether they are classified as historical resources or unique archaeological sites, pursuant to CEQA.
- The construction contractor shall prepare all potential finds in excavated material to the point of identification.

- Significant archaeological resources found shall be preserved as determined necessary by the qualified archaeologist.
- Excavated finds shall be curated at either the Los Angeles County Natural History Museum or its designee on a first-refusal basis, after which the finds shall be offered to a local museum or repository willing to accept the resources.
- Within 30 days of completion of the end of trenching activities, the qualified archeologist shall draft a report summarizing the finds, including the inspection period, an analysis of any resources found, and identification of the repository.
- Any resulting reports shall be filed with Santa Clara Water Division or their designee and with the South Central Coastal Information Center at the California State University, Fullerton.

Given the history of previously recorded archeological resources in the area, construction could have potential impacts on archeological resources; however, implementation of mitigation measure **CUL-1** would reduce potentially significant impacts to less than significant.

c. Less than Significant Impact.

Bouquet Canyon Road and the adjacent residential and community facility uses have been disturbed and graded for development. The trenching activities related to the construction of the proposed Project would occur in already-disturbed roadway right-of-way and would generally not go below 6 feet below grade, except at certain locations where the water pipeline must be placed below existing shallow storm drains (about 10 feet deep). Furthermore, the soils within the Project site consist of sandy, loamy soils.³⁵ Construction of the proposed pump station would include surficial grading to level the site. As such, the potential to affect a unique paleontological resource or geologic feature is considered low. Therefore, potential impacts on paleontological resources would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. Less than Significant Impact.

The majority of ground disturbance resulting from the proposed Project would occur within the existing roadway right-of-way, except for limited construction on LARC grounds for the pump station and associated pipeline. Therefore, the potential to encounter human remains would be low because this area has been disturbed by past roadway construction. Moreover, in accordance with the California Health and Safety Code and the Public Resources Code,³⁶ should human remains be discovered during trenching

35 US Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>, accessed November 2016.

36 California Health and Safety Code, Sections 7050.5 and 5097.98.

activities, trenching activities would immediately stop and the County Coroner would be contacted. The Coroner would have 2 working days to examine human remains after being notified by the responsible person. If the remains were found to be Native American, the Coroner would have 24 hours to notify the NAHC. The NAHC would immediately notify the person it believes to be the most likely descendent of the deceased Native American. The most likely descendent would have 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods. Should the descendent not make recommendations within 48 hours, the owner would reinter the remains in an area of the property secure from further disturbance; or should the owner not accept the descendant's recommendations, the owner or the descendent may request mediation by the NAHC. Therefore, potential impacts to human remains would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.6 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
GEOLOGY AND SOILS – Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. Strong seismic ground shaking? Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a.i No Impact.

The Santa Clarita Valley contains several known active and potentially active earthquake faults and fault zones. The San Andreas Fault Zone is located north of the Valley and extends through Frazier Park, Palmdale, Wrightwood, and San Bernardino.³⁷ The nearest regional faults are the San Gabriel and Holser faults with numerous regional faults in the Valley that are capable of producing strong seismically induced ground shaking. The Project site is not located within an Alquist-Priolo Earthquake Fault Rupture Zone, as

³⁷ County of Los Angeles, Santa Clarita Valley Area Plan, Safety Element, 195.

delineated by the California Geological Survey.³⁸ Because the Project Site is not located within a known earthquake fault or fault zone, no impacts from rupture of a fault on the proposed pipeline would occur.

Mitigation Measures: No mitigation measures are required.

a.ii. Less Than Significant Impact.

The area is subject to ground shaking and potential damage in the event of earthquakes. As noted previously, the most likely source of strong ground shaking within the region would be a major earthquake along the San Andreas Fault Zone or from the San Gabriel or Holser faults. Because the Project Site is located in a seismically active area, occasional seismic ground shaking is likely to occur within the lifetime of the proposed Project. Implementation of appropriate engineering design measures as required by the latest Standard Specifications for Public Works Construction “Greenbook”³⁹ for the pipeline and *California Building Code* (CBC) for the pump station would minimize potential seismic related hazards. The proposed Project would be required to adhere to the provisions of the latest Greenbook and CBC. Compliance with the requirements of the latest Greenbook and CBC for structural safety during a seismic event would reduce hazards from strong seismic ground shaking. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

a.iii. Less Than Significant Impact.

Liquefaction refers to loose, saturated sand or gravel deposits that lose their load-supporting capability when subjected to intense shaking. Liquefaction usually occurs during or shortly after a large earthquake. The movement of saturated soils during seismic events from ground shaking can result in soil instability and possible structural damage.⁴⁰ The Project Site is located within an identified liquefaction zone.⁴¹ However, the proposed pipeline would be located beneath Bouquet Canyon Road and surrounded by certified base and fill and the design and construction of the proposed pipeline and pump station would be required to adhere to the latest Greenbook and CBC, respectively, which contains provisions for soil preparation to minimize hazards from liquefaction and other seismic-related ground failures. Therefore, potential liquefaction impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

38 California Department of Conservation (DOC), California Geological Survey, Regional Geological and Mapping Program, 2015, <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>.

39 Public Works Standards, Inc. 2015. *Standard Specifications for Public Works Construction*. BNi Publications, Inc.

40 Santa Clarita Valley Area Plan, Safety Element (2012).

41 Santa Clarita Valley Area Plan, Appendix II: Maps, *Seismic Hazards*, Exhibit S-3, (2012).

a.iv. Less than Significant Impacts.

Landslides are the downslope movement of geologic materials that occur when the underlying geological support on a hillside can no longer maintain the load of material above it, causing a slope failure. The term landslide also commonly refers to a falling, sliding, or flowing mass of soil, rocks, water, and debris that may include mudslides and debris flows. The risks associated with landslides occur when buildings or structures are placed on slopes. The Project site is located within an area susceptible to landslides.⁴² However, the proposed pipeline would be buried beneath Bouquet Canyon Road and would be designed and constructed to adhere to the latest Greenbook, which contains provisions for soil preparation to minimize hazards from seismically-induced landslides. Likewise, the on-site pump station and associated pipeline would be constructed with the LARC development, and would be designed and constructed to adhere to the latest CBC. Therefore, with adherence to the latest Greenbook and CBC, potential landslide impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. Less than Significant Impact.

Erosion is the movement of rock fragments and soil from one place to another. Precipitation, running water, waves, and wind are all agents of erosion. Significant erosion typically occurs on steep slopes where storm water and high winds can carry topsoil down hillsides.

Construction of the proposed Project would result in the removal of soils from beneath Bouquet Canyon Road. Any topsoil removed from the pipeline trench would be stockpiled on site and replaced after the pipeline is installed. Standard best management practices as required under the National Pollutant Discharge Elimination System (NPDES) permit would require covering of exposed material to minimize erosion impacts. Therefore, impacts would be less than significant.

The proposed pipeline would be located within the roadway right-of-way, and the pump station would be located within the existing LARC development. As this would not occur within open space areas, there would be no loss of topsoil or soil erosion. Therefore, no impact would occur during operation of the proposed Project.

Mitigation Measures: No mitigation measures are required.

42 Santa Clarita Valley Area Plan, Appendix II: Maps, *Seismic Hazards*, Exhibit S-3, (2012).

c. Less Than Significant Impact.

The proposed pipeline would be located within the roadway right-of-way. Where the pipeline would be installed beneath the paved road, the asphalt surface would be saw cut, and a backhoe would be used to excavate a trench for the pipe. The road would be restored to preconstruction conditions after installing the pipe and backfilling the trench. The on-site pump station would be constructed on native material that is over excavated and recompacted, and would not be subject to liquefaction. The proposed Project would not result in substantial hazards from unstable or expansive soils and would be required to adhere to the latest Greenbook, which contains provisions for soil preparation to minimize hazards from liquefaction and other unstable geologic features. Therefore, with adherence to the latest Greenbook standards, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. Less Than Significant Impact.

Expansive soils contain significant amounts of clay particles that have the ability to give up water (shrink) or take on water (swell). When these soils swell, the change in volume can exert pressures that are placed on them, and structural distress and damage to buildings could occur. The proposed pipeline would be constructed beneath the existing roadway and right-of-way, which are constructed on engineered fill. This fill material would not be subject to significant expansion. The on-site pump station would be constructed on native material that is over excavated and recompacted, and would not be subject to significant expansion. Moreover, the impervious cover would minimize water infiltration, thereby minimizing soil expansion. Finally, proposed Project would be required to adhere to the latest Greenbook and CBC, which contains provisions for soil preparation to minimize hazards from soil expansion. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

e. No Impact.

Development of the proposed Project would not require the installation of a septic tank or alternative wastewater disposal system. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

5.7 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
GREENHOUSE GAS EMISSIONS – Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. Less Than Significant Impact.

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32; California Health and Safety Code Division 25.5, Sections 38500 et seq.), which requires the California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that Statewide GHG emissions are reduced to 1990 levels by 2020. Senate Bill (SB) 375 (2009) also calls for reduction in greenhouse gas emissions through infill and other environmentally friendly development.⁴³ In the CEQA Guideline Amendments, a threshold of significance for GHGs was not specified; rather, lead agencies are encouraged to consider many factors in performing a CEQA analysis and to make their own significance threshold determinations.

The SCAQMD has not established a finalized quantitative threshold for GHG emissions under CEQA, nor has the County of Los Angeles. In 2008, the California Air Pollution Control Officers Association (CAPCOA) published a guidance document, *CEQA and Climate Change*,⁴⁴ which outlined recommended alternatives for GHG analyses on a project level under CEQA. One option within the CAPCOA report determined that if GHG emissions from an individual project remained less than 900 metric tons of carbon dioxide equivalents (MTCO₂e) annually, the project would be consistent with a market capture rate of 90 percent GHGs for future discretionary projects according to GHG emissions forecasts. The 900 MTCO₂e value represents a conservative interim screening threshold, as it represents less than 0.001 percent of the annual GHG emissions in Los Angeles County.

Additionally, between 2008 and 2010, the SCAQMD convened a GHG CEQA Significance Threshold Stakeholder Working Group to evaluate strategies for analyzing GHG emissions at the project level under CEQA. No final thresholds were officially designated. The *Tier III – Numerical Screening Thresholds* was recommended as the preferred quantitative option by the working group staff, which included a 3,000

⁴³ Santa Clarita Valley Area Plan, Circulation Element (2012).

⁴⁴ California Air Pollution Control Officers Association, *CEQA & Climate Change* (January 2008).

MTCO₂e annual threshold for all non-industrial projects.⁴⁵ Until a finalized quantitative threshold is devised, the 3,000 MTCO₂e value constitutes the most recent recommendation from the SCAQMD.

CalEEMod was utilized to prepare estimates of GHG emissions that would be generated by the construction of the proposed pipeline. Because construction would take place over approximately 5 months, construction-related emissions of GHGs generated by the proposed Project would be limited to the year 2017. Results of emissions modeling determined that construction of the proposed Project would result in approximately 171.6 MTCO₂e (see **Appendix A**). In order to combine construction and operation related GHG emissions, the construction emissions are amortized over a 30-year period. Total operational related GHG emissions include area and indirect sources associated with the proposed Project, including vehicle trips from maintenance activities (0.27 MTCO₂e per year), electricity consumption from operation of the pumps (2.23 MTCO₂e per year), and the amortized construction emissions (5.72 MTCO₂e per year). Combined GHG emissions were calculated to be approximately 8.22 MTCO₂e per year following the completion of construction. The GHG emissions that would result from project implementation are substantially below the recommended CAPCOA screening threshold of 900 MTCO₂e per year and the SCAQMD interim annual threshold of 3,000 MTCO₂e. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. Less than Significant Impact.

As noted in discussion 7a above, the proposed project would generate emissions below the CAPCOA screening threshold. Therefore, the proposed project would not conflict with an applicable plan, policy, or regulation for the purposes of reducing the emissions of GHGs. Accordingly, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

⁴⁵ South Coast Air Quality Management District GHG CEQA Significance Threshold Stakeholder Working Group, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15* (September 28, 2010).

5.8 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact	
HAZARDS AND HAZARDOUS MATERIALS – Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to <i>Government Code</i> Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a. Less than Significant Impact.

Hazardous materials include any substance or combination of substances that may cause or significantly contribute to an increase in death or serious injury, or pose substantial hazards to humans and/or the environment.⁴⁶ The proposed pipeline would carry water that has been disinfected. However, the concentration of chloramines in the distribution lines would not be at a level considered hazardous and

⁴⁶ Santa Clarita Valley Area Plan, Safety Element (2012).

would be at a level safe for drinking; consequently, no aspect of the proposed pipeline would involve the use of hazardous materials, and the proposed project would not create a hazard-related to exposure to hazardous materials. Therefore, compliance to the applicable regulatory requirements would ensure less than significant impacts.

Mitigation Measures: No mitigation measures are required.

b. Less Than Significant Impact.

In the event of a release of water from a burst pipeline resulting from a seismic event, concentrations of chloramine within the distribution system would not be high enough to be considered hazardous. Therefore, impacts related to hazardous materials being released into the environment from the rupture of the pipeline would be less than significant.

Mitigation Measures: No mitigation measures are required.

c. Less than Significant Impact.

The southern project staging area would be located on the same parcels as the Joseph Scott Detention School, and the Kenyon Scudder Detention School is located immediately adjacent the southern staging area and pipeline transect. The construction phase of the proposed pipeline could potentially expose the school to short-term hazardous emissions from diesel machinery and individual employee passenger vehicles. There would also be a potential for the handling of hazardous materials, such as oils, grease or fuels, utilized during the construction of the proposed pipeline. Compliance with all regulations for the handling of hazardous materials would reduce the potentiality of release. No hazardous emissions or handling of hazardous materials would be conducted during the operational phase of the proposed pipeline or pump station. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. Less than Significant Impact.

A geographical search for hazardous materials sites, as defined in Government Code Section 65962.5, utilizing the online environmental database GeoTracker produced three locations of potential hazardous material within 1 mile of the Project Site and one location within the Project area. Three locations identified were classified as leaking underground storage tank (LUST) cleanup sites, all of which have been designated as case closed: LARC Foundation (29880 Bouquet Canyon Road, Saugus CA 91350 – within the northern Project staging area), Dixie Diesel Station (29471 The Old Road, Saugus CA 91350), and San Francisquito Power Plant #1 (3700 Clear Creek Canyon Road, Santa Clarita, CA 91350). The fourth location

identified is Joe Scott Boys Camp (28700 Bouquet Canyon Road, Saugus CA 91350). This site is identified as a Historical – WDR (Water Discharge Report) site. The status history for this site lists “Historical – WDR” as of December 18, 1958, and a case date as September 21, 2006.⁴⁷ This site is located on the same parcel as the southern staging area. The Project Site is not located in an area with current hazardous materials sites and therefore would not create a significant hazard to the public or environment. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

e. No Impact.

The closest airport to the Project Site is the Agua Dulce Airpark located approximately 9 miles to the east. Therefore, the proposed pipeline would not be located within an airport land use plan or within 2 miles of a public airport or public use airport. No safety hazard impacts would occur to people residing or working in the area of the proposed Project.

All pipeline structures would be subsurface. Aboveground facilities including air/vacuum valves, fire hydrants, and the on-site pump station is planned to be 10 feet high or less; no aboveground structures would be constructed that would obstruct any airport operations. Therefore, no safety hazards resulting from airport proximity are expected and no impact would occur.

Mitigation Measures: No mitigation measures are required.

f. No Impact.

The nearest airport, public or private, is the Agua Dulce Airpark located approximately 9 miles to the east. The proposed Project Site would not be located near a private airstrip; therefore, the project would not create a safety hazard for those working within the Project Site. Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

g. Less than Significant Impact with Mitigation.

The Project would be constructed along Bouquet Canyon Road, a two-lane roadway that is designated as a secondary disaster route.⁴⁸ While the Project would not cause permanent alterations to vehicular circulation routes and patterns and/or impede public access or travel on public rights-of-way, construction

⁴⁷ GEOTracker. State Water Resources Control Board. <http://geotracker.waterboards.ca.gov/>. Accessed November 4, 2015.

⁴⁸ County of Los Angeles, Department of Public Works, Disaster Routes with Road Districts Map, North Los Angeles County, 2012.

would require closure of one lane of the roadway at a time, potentially impeding emergency access. However, these potential impacts would be mitigated to a less than significant level by the implementation of an emergency evacuation plan as described in mitigation measures **HAZ-1** and **HAZ-2**. Mitigation measure **HAZ-1** would involve the preparation of an emergency response plan in consultation with Los Angeles County Fire Department to reduce impacts. Mitigation measure **HAZ-2** would require the preparation of a Traffic Control Plan, and a Construction Materials Staging and Construction Parking Plan. Impacts would be less than significant with mitigation incorporated.

The proposed pipeline would be located below ground with a meter and fire hydrants located above ground. The proposed pump station would be located on LARC property. When installed, these components would not interfere with traffic flow or otherwise hamper emergency response or evacuation plans. Periodic maintenance of components would be performed by vehicles traveling on surface roads to the meter, pump station, and fire hydrants. The size and number of maintenance vehicles present at these components would not interfere with traffic flow. Therefore, operation related impacts would be less than significant.

Mitigation Measures: The following mitigation measures are proposed to reduce potentially significant impacts relating to hazards.

HAZ-1 Prior to the issuance of construction permits, SCWD shall develop an emergency response plan in consultation with the Los Angeles County Fire Department and Los Angeles County Sherriff's Department. The emergency response plan shall include, but not be limited to, the following: evacuation routes for vehicles and pedestrians, location of nearest hospitals, and fire department stations.

HAZ-2 Prior to construction activities for the proposed Project that would require the diversion of traffic, the SCWD shall prepare a traffic control plan and implement construction zone traffic control measures in compliance with the Work Area Traffic Control Handbook (WATCH) manual or the Manual on Uniform Traffic Control Devices (MUTCD) standards.

h. Less than Significant Impact with Mitigation.

The Project Site is located in a Very High Fire Hazard Severity Zone (VHFHSZ).⁴⁹ The construction activities (e.g., the use of welding torches or other tools for on-site pump station construction) within these areas may increase fire danger. The use of flames/sparks in hillside brushy areas would likewise increase the risk of wildfire. As such, impacts would be potentially significant.

49 Santa Clarita Valley Area Plan, Appendix II: Maps, *Very High Fire Hazard*, Exhibit S-6, (2012).

Operation of the proposed Project would not exacerbate the potential for wildfires. There are no ignitable materials or processes that would have the potential to create a fire. Therefore, impacts related to exposing people or structures to adverse effects from wildfires would be less than significant.

Mitigation Measures: Implementation of the mitigation measure would reduce impacts to less than significant.

HAZ-3 During construction activities, the construction contractor shall provide fire-fighting equipment, such as fire extinguishers, to the satisfaction of the Los Angeles County Fire Department and shall provide instruction on possible fire risk and the use of fire extinguishers as part of required construction-related safety training.

5.9 HYDROLOGY AND WATER QUALITY

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

Discussion

a. Less Than Significant Impact.

Water quality in surface and groundwater bodies is regulated by the State Water Quality Control Board (SWQCB) and Regional Water Quality Control Boards (RWQCBs). The Los Angeles RWQCB (Region 4) is

responsible for implementation of State and federal water quality protection guidelines near the proposed Project site.⁵⁰ Construction of the pipeline would include excavation activities that would have the potential to generate sediment-laden runoff during rain events. Stormwater runoff from construction sites is regulated by the General Construction Storm Water Permit (Water Quality Order 99-08-DWQ) issued by the SWQCB. This permit applies to traditional construction projects and linear underground projects. Construction activities would be required to comply with the General Construction Storm Water Permit and would ensure that activities would not violate any water quality standards or waste discharge requirements. Best management practices would be implemented prior to a storm event, including waste management (e.g., stockpile management, sanitary management, spill prevention and control) and temporary sediment controls (e.g., silt fencing), to prevent prohibited discharges and to restrict sediment laden runoff from entering Bouquet Canyon Creek. Accordingly, construction impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. Less than Significant Impact.

The construction of the pipeline would occur under the existing roadway and would not result in an increase in the amount of impervious surface that would interfere with groundwater recharge. The proposed pump station would add approximately 200 square feet of impervious surface. The proposed Project is also not located within the boundaries of a sole source aquifer as designated by the U.S. EPA.⁵¹ The proposed Project would not involve pumping of groundwater and would not otherwise have an impact on the depletion of groundwater supplies or substantially interfere with groundwater recharge due to the negligible decrease in pervious surfaces. The purpose of the proposed Project is to provide retail potable water to users in the North Bouquet Canyon area that rely on groundwater. Therefore, the proposed Project would have less than significant impacts on the groundwater basin.

Mitigation Measures: No mitigation measures are required.

c. Less Than Significant Impact.

The construction of the proposed pipeline would occur within the existing roadway along Bouquet Canyon Road. Operation of the pipeline would not alter the existing drainage pattern of the Project Site. While construction activities would have the potential to generate sediment-laden runoff during rain events, the proposed Project would be required to conform to the General Construction Storm Water Permit to

50 State and Regional Water Boards. State Water Control Board. California Environmental Protection Agency. http://www.waterboards.ca.gov/waterboards_map.shtml. Accessed September 18, 2015.

51 US Environmental Protection Agency, Sole Source Aquifers, 2015, <http://www2.epa.gov/dwssa>. Accessed November 2015.

prevent erosion and siltation off site via implementation of best management practices, including but not limited to, the use of hay bales. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. Less than Significant Impact.

Bouquet Creek is located near the proposed pipeline transect. However, the construction of the pipeline would occur entirely within the existing right-of-way of Bouquet Canyon Road and would not encroach on the creek. The on-site pipeline associated with the on-site pump station would connect to pipeline already installed in an existing bridge structure that crosses over the Bouquet Creek. The design of the proposed Project would allow post-construction water runoff to continue in existing directions. As such, the proposed Project would not alter the existing drainage pattern of the site or area, including through the alternation of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. Therefore, less than significant impacts would occur.

Mitigation Measures: No mitigation measures are required.

e. No Impact.

The proposed Project would construct a pipeline within roadway right-of-way. Large areas of new impervious surfaces would not be created as a result of the proposed Project. Bouquet Canyon Road would be restored to existing conditions to ensure that the existing surface water runoff is not altered.

Similarly, the pump station would be located within the existing LARC development and would be approximately 200 square feet in size. Design of the enclosure would meet LADPW standards for post-construction surface water requirements. Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

f. Less than Significant Impact.

As previously discussed, construction activities would include BMPs such as straw wattles and silt fencing to minimize erosion and surface water runoff from the site. The amount of impervious surface on site at project completion would be similar to that for existing conditions. The amount of runoff from the site would not be substantially changed to that of existing conditions because project development would not increase the amount of runoff or contribute to the degradation of water quality. In addition, the proposed

Project would not include the placement of dredged or fill material, or include construction of structures in, under, or over waters of the U.S.⁵² Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

g.-h. Less than Significant Impact.

According to the Los Angeles County Santa Clarita Valley Area Plan Flood Plains Map, the Project Site is located within an area subject to flooding by the 100-year chance flood.⁵³ The Department of Water Resources shows the type of 100- year chance floods, which would be: 'A' – Area subject to 1 percent annual chance flood, no Base Flood Elevations determined and 'AO' – Area subject to 1 percent annual chance flood with flood depths of 1 to 3 feet (usually sheet flow on sloping terrain) average depths determined.⁵⁴ However, the proposed Project would not construct any new homes and would not have any aboveground structures that would impede or redirect flood flows. The on-site pump station would be located outside the "AO" zone. The storage of construction equipment would be potentially within the 100-year floodplain. Due to the short term and temporary construction of the proposed Project, potential impacts to the Project Site from flooding events would be low. Impacts would be less than significant.

According to the USGS, the Project is located within the Santa Clara River Watershed, watershed number 18070102.⁵⁵ According to the National Wild and Scenic Rivers System, the proposed Project is approximately 19 miles from the closest wild and scenic river, which is a portion of Piru Creek,⁵⁶ and would not have a potential impact on the Wild and Scenic Rivers Act as created in 1968.⁵⁷ Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

52 US Army Corps of Engineers, *Navigable Waters in Los Angeles District*, <http://www.spl.usace.army.mil/Missions/Regulatory/JurisdictionalDetermination/NavigableWaterways.aspx>, Accessed November 2015.

53 Santa Clarita Valley Area Plan, Appendix II: Maps, *Flood Plains*, Exhibit S-4 (2012).

54 California Department of Water Resources, *Best Available Maps*, <http://gis.bam.water.ca.gov/bam/>. Accessed November 2015.

55 US Geological Survey (USGS), *Science in your Watershed*, 2014, <http://water.usgs.gov/wsc/ca>. Accessed November 2015.

56 National Wild and Scenic Rivers System. <http://www.rivet/18070102.html> [rivets.gov/maps/conus.php](http://www.rivets.gov/maps/conus.php). Accessed November 2015.

57 Public Law 90-542; 16 U.S.C. 1271 et seq.

i. Less than Significant Impact.

The proposed Project would construct a pipeline beneath the roadway right-of-way. The proposed Project would not involve the construction of any housing, or habitable structures. As such, it would not expose people or habitable structures to flooding.

The only levee or dam in the vicinity of the Project is the Bouquet Reservoir, located approximately 8.5 miles north by northeast of the LARC Ranch property. The storage of construction equipment would be potentially within the 100-year floodplain. However, due to the short term and temporary construction of the proposed Project, potential impacts to the Project Site from flooding events would be low. As discussed in Section 5.9 g-h above, the on-site pump station would be located outside the 100-year flood "AO" zone. Therefore, impacts from flooding as a result of a dam or levee failure would be less than significant.

Mitigation Measures: No mitigation measures are required.

j. Less than Significant Impact.

Tsunamis are large-scale sea waves produced from tectonic activities along the ocean floor. Seiches are freestanding or oscillatory waves associated with large enclosed or semi-enclosed bodies of water. Given that the Project Site is not located near the ocean or any large enclosed or semi-enclosed bodies of water, the proposed Project would not be located within designated tsunami or seiche zones. Debris and mudflows are typically a hazard experienced in the floodplains of streams that drain very steep hillsides within the watershed. Because the Project Site is located below ground or outside of the 100-year flood "AO" zone, as discussed above, the Project Site would not place people or structures at risk of inundation by seiche, tsunami, or mudflow. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.10 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
LAND USE AND PLANNING – Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. No Impact.

The Project Site is located within existing roadway right-of-way and on LARC grounds and includes temporary staging areas on public and private property and the on-site pump station on private property (i.e., LARC property). The proposed pipeline would be located belowground, and existing transportation access would continue upon completion. The construction staging areas would be short term and temporary in nature. The nearest community is the City of Santa Clarita at the south end of the project area. There are no facilities proposed by the project that could physically divide an established community. Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

b. No Impact.

Per Section 53091 of the California Government Code, state law does not apply specific local zoning, building, or permit requirements to this type of SCWD project.⁵⁸ Development of the proposed Project would serve existing, locally approved developments and would not conflict with local zoning, land use designations, plans, policies, or regulations. The Project area is located over 50 miles from the Pacific

58 California Government Code. Section 53091(d).

Ocean and over 300 miles from the San Francisco Bay, meaning the Coastal Zone Management Act would not apply.⁵⁹ Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

c. No Impact.

According to the California Department of Fish and Wildlife, no Natural Community Conservation Plans or Habitat Conservation Plans exist within the project area. Therefore, the project would not conflict with any of these types of plans and no impacts would occur.

Mitigation Measures: No mitigation measures are required.

59 US Code, Title 16, Section 1453, Coast Zone Management Act of 1972 as amended through the Coastal Zone Protection Act of 1996.

5.11 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
MINERAL RESOURCES – Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. No Impact.

According to the Santa Clarita Valley Area Plan, the Project area is not located in an area where significant mineral deposits or oil or natural gas wells are present.⁶⁰ The proposed pipeline, on-site pump station and surrounding areas have no substantial records of mineral resources. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

b. No Impact.

As previously discussed, the proposed Project is not located within important mineral resource or oil or gas production areas. Consequently, the Project would not result in the loss of availability of locally important mineral resource recover sites delineated on the Santa Clarita Valley Area Plan. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

60 Santa Clarita Valley Area Plan, Appendix II: Maps, *Mineral Resources*, Exhibit CO-2, (2012).

5.12 NOISE

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
NOISE – Would the project:				
a. Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. Less than Significant with Mitigation.

Noise can have an adverse effect to humans, animals, and structural components. Noise exposure regulatory criteria are concerned largely with controlling location of new residences in existing environments. The SCVAP⁶¹ includes guidelines to evaluate ambient noise and land use compatibility. For the average community, outdoor noise levels up to 60 A-weighted decibels (dBA) and indoor noise levels up to 40 dBA are considered acceptable.

Ambient daytime noise measurements were taken along the Project Site to illustrate the local noise environment. Noise sources included vehicle travel and typical residential activities (i.e., lawn mowing activities). **Table 5.12-1, Ambient Noise Levels**, identifies the existing short-term (15 to 45-minute)

61 Santa Clarita Valley Area Plan, Noise Element (2013).

ambient noise levels at five different locations along the Project Site. **Figure 5.1 Noise Sensor Locations**, identifies the locations of the five measurements. Measured noise levels ranged from 50.8 to 70.3 dBA.

**Table 5.12-1
Ambient Noise Levels**

Location Description	Average Noise Levels (dBA)
1	67.2
2	50.8
3	62.8
4	67.5
5	70.3

Note: For Noise Data, please refer to **Appendix D**.

As shown in **Table 5.12-2, County of Los Angeles Daily Construction Noise Limits (dB[A])**, the maximum allowable level for construction related noise during normal construction timeframes ranges from 75 dBA at single-family residential uses to 85 dBA at semi-residential/commercial uses.⁶² Noise attenuation barriers and muffling of grading equipment may also be required.

**Table 5.12-2
County of Los Angeles Daily Construction Noise Limits (dB[A])**

Construction Time	Single-Family Residential	Multifamily Residential	Semi-Residential/ Commercial
Mobile Equipment			
7:00 AM to 8:00 PM except Sundays and legal holidays	75	80	85
8:00 PM to 7:00 AM except Sundays and legal holidays	60	64	70
Stationary Equipment			
7:00 AM to 8:00 PM except Sundays and legal holidays	60	65	70
8:00 PM to 7:00 AM except Sundays and legal holidays	50	55	60

Source: Los Angeles County Code, Title 12 Environmental Protection, Chapter 12.06 Noise Control, Section 12.08.440, Construction Noise.

62 Los Angeles County Sanitation Districts, Chapter 17 Noise, "Regulations for Construction Noise", (2005), 17-3.



SOURCE: Meridian - 2016; Esri, Digital Globe - 2016

FIGURE 5.1



Noise Sensor Locations

108-001-15

Construction

It should be noted that the California Government Code exempts the development of water and wastewater infrastructure projects initiated by water agencies from County and City building and zoning ordinances.⁶³ However, for analysis purposes construction noise levels would be compared to Los Angeles County Noise Ordinance.

Estimated noise levels associated with the trenching activities are presented in **Table 5.12-3, Typical Maximum Noise Levels for Construction Equipment**. The average noise level for an off-highway truck is 82 dBA at 50 feet from source and the average noise level for a paver is 89 dBA at 50 feet from the source.

Table 5.12-3
Typical Maximum Noise Levels for Construction Equipment

Equipment	Approximate Leq dB(A)			
	25 Feet	50 Feet	100 Feet	200 Feet
Grader	87	81	75	69
Truck	88	82	76	70
Backhoe	87	81	75	69
Concrete Mixer	91	85	79	73
Paver	94	89	83	77

Source: U.S. Department of Transportation, *Construction Noise Handbook*, Chapter 9.0, August 2006.

Note: Leq = equivalent sound level.

The nearest semi-residential/commercial use to the proposed pipeline alignment is located approximately 50 feet northwest of the Project Site and the nearest single-family residential use is located approximately 55 feet to the west. The nearest sensitive receptor within the LARC Ranch property is located approximately 75 feet northeast of the proposed pump station. Based on the attenuation loss of 6.0 dBA for every doubling of distance across hard surfaces, pipeline related construction noise levels at these receptors would range from 82 to 89 dBA, respectively. Pump station related construction noise levels at the nearest sensitive use would be 85 dBA. The use of new muffler technology reduces sound levels from equipment approximately 2 dBA. Accordingly, noise levels at sensitive receptors adjacent to pipeline related construction activities would experience approximately 80 to 87 dBA. The closest single-family residence to pipeline activities is located adjacent to Bouquet Canyon Road and Shadow Valley Lane at the southern end of the pipeline alignment. A 6-foot-high masonry wall is located between the Project Site and the residences to the west. The topography along the western portion of Bouquet Canyon Road varies in elevation, and at various points, provides a line of sight break between the road and residences.

63 California Government Code. Section 53091(d) and (e).

Masonry walls and line of sight breaks reduce noise levels by approximately 5 dBA. Therefore, noise levels at the single-family residence adjacent to the pipeline alignment would be approximately 75 to 82 dBA. Noise levels within the LARC Ranch property at the nearest sensitive use would be 81 dBA.

Due to the temporary nature of the construction activities, the proposed Project construction phase would not expose persons to noise levels exceeding the established standards for more than several days at a time and would be limited to normal working hours by the County Noise Ordinance. In order to minimize construction noise levels on adjacent sensitive receptors, the following mitigation measures will be implemented which include noise attenuating buffers near residential areas and orient stationary sources to direct noise way from sensitive uses.

Mitigation Measures: The following mitigation measures shall be implemented.

- NOI-1** The contractor shall locate all stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors. Where possible, noise-generating equipment shall be shielded from nearby noise-sensitive receptors (single-family residences only) by noise attenuating buffers. Stationary noise sources located less than 200 feet from noise-sensitive receptors shall be equipped with noise reducing engine housings. Portable acoustic barriers shall be placed around noise-generating equipment that is located less than 100 feet from noise-sensitive receptors (single-family residences only).

- NOI-2** The contractor shall assure that construction equipment powered by gasoline or diesel engines have sound control devices at least as effective as those provided by the original equipment manufacturer (OEM). No equipment shall be permitted to have an unmuffled exhaust.

- NOI-3** The contractor shall assure that noise-generating mobile equipment and machinery are shut-off when not in use.

- NOI-4** Residences within 200 feet of a construction area shall be notified of the construction schedule in writing, at least 24 hours prior to construction. The Santa Clarita Water Division and the contractor shall designate a noise disturbance point of contact who would be responsible for responding to complaints regarding construction noise. The point of contact shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the noise disturbance shall be conspicuously placed on construction site fences and written into the construction notification schedule sent to nearby residences.

With mitigation, the proposed construction noise levels would result in less than significant impacts during construction.

Operation

Sound associated with pipeline maintenance would result in short-term, random incidences that would not result in an increase of ambient noise levels within the surrounding area. In addition, pipeline work would be limited to daylight hours to avoid disturbing any sensitive receptors. The pump station would be located within a walled enclosure on private property (LARC grounds). Therefore, operation related impacts would be less than significant.

Project-Related Traffic

As discussed in **Section 5.16, Transportation and Traffic**, the proposed Project would construct a water pipeline beneath Bouquet Canyon Road and an on-site pump station and associated pipeline which would generate additional construction related trips. The increase in construction related trips would be minimal and would not substantially increase the ambient roadway noise levels. Furthermore, vehicle trips generated during operation of the proposed Project would result in approximately 5 weekly trips. The increase in operation related trips would result in a negligible increase in traffic volumes along Bouquet Canyon Road. Therefore, overall traffic noise would remain similar to existing conditions and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b. Less than Significant Impact.

Construction activities could generate varying degrees of ground vibration, depending on the construction procedures, construction equipment used, and proximity to vibration-sensitive uses. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. Ground vibrations from construction activities rarely reach levels that could damage structures, but can achieve the perceptible ranges in buildings close to a construction site.

The closest sensitive receptor to the proposed pipeline is approximately 50 feet to the northwest. It is assumed for the purpose of analysis that a loaded truck would generate the highest vibration levels at the sensitive receptor. The Federal Transit Administration (FTA) threshold for architectural damage to nonengineered timber and masonry buildings is approximately 94 VdB (vibration decibels). Loaded trucks are capable of producing approximately 92 VdB at 15 feet. Vibration levels attenuate (decrease) 6 decibels every doubling of distance; thus, vibration levels would be approximately 76 VdB at the sensitive use to the northwest, below the FTA vibration threshold. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c. Less than Significant Impact.

As stated above, the construction phase of the project would be considered temporary and would not result in a substantial permanent increase in the ambient noise levels in the proposed Project's vicinity. Operation of the proposed Project pipeline would occur below ground, and no constituents of the pipeline would create additional noise sources other than noise potentially created by periodical maintenance procedures. The on-site pump station would be located within a walled enclosure on LARC grounds and would not result in a substantial increase in the ambient noise outside LARC property, or to residences on LARC property. The nearest residence on LARC property would be approximately 75 feet to the east. Therefore, the proposed Project would not result in the permanent increase in ambient noise levels. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

d. Less Than Significant Impact.

As stated above in discussion 12a, the proposed Project would generate temporary elevated noise levels due to the construction phase of the proposed Project. These levels were found to be consistent with the Los Angeles County Noise Ordinance. Therefore, temporary or periodic noise impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

e. No Impact.

The closest airport to the Project Site is the Agua Dulce Airport located approximately 8 miles to the east. Accordingly, the proposed Project would not be located within an airport land use plan or within 2 miles of a public airport or public use airport. The Project would not expose people residing or working in the area to excessive noise levels. Therefore, no impact would occur.

Mitigation Measures: No mitigation measures are required.

f. No Impact.

The proposed Project is located 8 miles to the west of the Agua Dulce Airport. Accordingly, the Project would not expose people residing or working in the project area to excessive noise levels. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

5.13 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
POPULATION AND HOUSING – Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. Less Than Significant Impact.

The proposed Project would include the construction of a water pipeline that would serve an already established residential/institutional development that is dependent on groundwater. As previously discussed in the Project Description, the water wells at LARC Ranch no longer support groundwater production in the vicinity as a result of the current drought conditions and diminished releases from Bouquet Reservoir. The pipeline has been sized as a 12-inch diameter water pipeline to provide water service to LARC and other existing residential and commercial users in the northern Bouquet Canyon area along the pipeline route. The proposed Project would meet the objective of the SCWD Water Master Plan Update and the UWMP to supplement the groundwater wells with direct potable water. As such, it would not induce substantial population into the area. Therefore, impacts would be less than significant.

Environmental Justice

Environmental justice issues relate to a minority or low-income population that has or would be exposed to more than its fair share of pollution or environmental degradation if a project is implemented.⁶⁴ The proposed Project is located in northern Los Angeles County in the Santa Clarita Valley where the existing population had a median income over \$87,000.⁶⁵ Development in this area is primarily single-family residential and rural uses. Therefore, the Project Site is not located within a neighborhood that suffers from exposure to adverse human health or environmental conditions. The proposed Project is considered

64 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994, <http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf>.

65 City of Santa Clarita, Economic Development Department, “Community Profile”, www.santa-clarita.com/Modules/ShowDocument.aspx?documentID=7833. Accessed November 5, 2015.

a benefit to the existing population in that it would provide potable water to LARC Ranch, and other existing residential and commercial users along the pipeline route that are dependent on water wells. Therefore, no impacts were found with regard to federal regulation Executive Order 12898, Environmental Justice.

Mitigation Measures: No mitigation measures are required.

b. No Impact.

Construction and operation of the proposed Project would occur within the Bouquet Canyon roadway right-of-way and would utilize two existing open areas for construction staging areas. Accordingly, the proposed Project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

c. No Impact.

Construction and operation of the proposed Project would occur within the Bouquet Canyon roadway right-of-way and would utilize two existing open areas for construction staging areas. Accordingly, the proposed Project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

5.14 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
PUBLIC SERVICES				
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:				
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. – e. Less Than Significant Impact.

The proposed Project would not result in adverse physical impacts associated with the provision of a new or physically alter an existing government building. The proposed Project could be subject to vandalism and theft during construction and require support of local law enforcement; however, no new facilities would be required. The construction staging areas would be fenced to discourage vandalism and theft. In addition, the proposed pipeline would be located below ground upon completion of construction and would not need permanent security measures. The on-site pump station would be located within a walled enclosure on private property (LARC grounds). Thus, police protection to the project area would remain similar to existing operations. Therefore, impacts on police protection would be less than significant.

Should the Project Site require emergency or fire services, the Los Angeles County Fire Department would be able to provide adequate response. In addition, mitigation measure HAZ-3 would require the firefighting devices, such as fire extinguishers, in order to minimize the spread of wildfire. Therefore, the proposed Project would not increase demand on the existing Los Angeles County Fire Department services and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.15 RECREATION

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
RECREATION – Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. Less Than Significant Impact.

Recreational resources in the SCWD service area consist of state, county/regional, and local parks and designated regional and local recreational trails. The Los Angeles County Department of Parks and Recreation provides local parks and recreation facilities for northwestern Los Angeles County residents and provides regional parks for all residents of the county. The City of Santa Clarita also provides local parks within the City boundaries. Regional recreation areas under the control of the federal government include the Angeles National Forest, the Los Padres National Forest, and the Santa Monica Mountains National Recreation area.

The implementation of the proposed Project would not directly result in growth in the project area, and thus would not directly increase the use of recreational facilities. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

b. No Impact.

The implementation of the proposed Project would not directly result in growth in the project area, and therefore would not require the construction or expansion of recreational facilities. Upon completion, the proposed Project would provide potable water to the LARC Ranch development and other existing developments in the North Bouquet Canyon area.

As described above, the proposed Project has been sized for existing residential and commercial users along the pipeline route. Therefore, no growth-related impacts to recreational resources would occur.

Mitigation Measures: No mitigation measures are required.

5.16 TRANSPORTATION AND TRAFFIC

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. Less than Significant Impact.

Construction-related traffic would be generated during construction of the proposed Project, including worker vehicles traveling to and from the work site. The proposed Project is anticipated to generate 1.25 construction workers per piece of equipment. As previously discussed, the proposed Project would utilize two off-highway trucks, a backhoe, two trenchers for trenching activities. This would equate to approximately eight workers arriving prior to 7:00 AM and leaving either prior to or after afternoon peak-hour traffic (6:00 PM), thereby minimizing trips during peak hours. Short-term traffic impacts would be less than significant. Once construction activities are complete, traffic would revert to the current conditions.

Mitigation Measures: No mitigation measures are required.

b. Less than Significant Impact.

The 2010 Congestion Management Program (CMP) in effect in Los Angeles County was adopted by the Los Angeles County Metropolitan Transportation Authority on October 28, 2010.⁶⁶ The nearest CMP-designated roadway is the Sierra Highway, approximately 3.5 miles east of Bouquet Canyon Road. The proposed Project would generate an incremental increase in additional construction related trips during off-peak hours and would not affect intersections along Sierra Highway. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c. No Impact.

The Project is located approximately 9 miles to the west of Agua Dulce Airpark. The proposed Project would not result in a change in air traffic patterns. Airplane takeoffs and landing are at a sufficient distance from the locations not to pose as a safety risk. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

d. No Impact.

No changes are proposed as part of the proposed Project to the surrounding road system. Clear and uninterrupted access to the pipeline for emergency response vehicles would continue to be provided. The Project would be compatible with the surrounding zoning designations and the existing uses. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

e. Less Than Significant Impact with Mitigation.

The construction of the proposed Project could temporarily impact emergency access from construction activities within roadway Bouquet Canyon Road and could impact normal traffic flow and create roadway conditions that may delay emergency response times. However, mitigation measure HAZ-2, requires the preparation of traffic control plans and the implementation of construction zone traffic control measures. Therefore, with this mitigation, potentially significant impacts would be reduced to less than significant.

⁶⁶ Los Angeles County Metropolitan Transportation Authority, 2010 Congestion Management Program, adopted October 28, 2010.

The operation of the proposed Project would not result in inadequate emergency access because the facilities would not alter roadway alignments. Therefore, operation-related impacts would be less than significant.

Mitigation Measures: Mitigation Measure HAZ-2 as discussed in **Section 5.8, Hazards and Hazardous Materials**, would reduce impacts to a less than significant level.

f. No Impact.

As previously stated, the proposed Project would not result in the increase of people, thereby eliminating the need for additional public transit services, nor would it result in straining the current system. Because the proposed Project would not result in any changes to the roadway system, current bus routes would remain the same.

No changes to the roadway system along Bouquet Canyon Road are proposed with respect to the proposed Project. The proposed Project would not involve the alteration of or conflict with any policies, plans, or programs regarding public transit or other pedestrian facilities. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

5.17 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
Tribal Cultural Resources – Would the project:				
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a.i. Less than Significant Impact.

The proposed Project Site has been disturbed and excavated in the past.

As discussed in **Section 5.5, Cultural Resources**, a records search was performed at the SCCIC on October 14, 2015, and only identified one previously identified historic structure. Since initially recorded, the structure was renovated and determined to be ineligible for listing as a historic resource under CEQA in 2004 (see **Appendix C**).

Therefore, less than significant impacts would occur.

Mitigation Measures: No mitigation measures are required.

a.ii. Less Than Significant Impact with Mitigation.

A search of the Sacred Lands File was conducted by the Native American Heritage Commission (NAHC) on October 19, 2015 (see **Appendix C**); and on November 9, 2015, the NAHC indicated that there were no known cultural resources identified in the vicinity of the proposed Project Site.

Assembly Bill 52 (AB 52) establishes a formal consultation process for California Native American tribes to identify potential significant impacts to tribal cultural resources, as defined in Public Resources Code Section 21074 as part of CEQA. Pursuant to AB 52, the NAHC provided a list of tribes for the project area, and identified the following five tribes that may have interest in the area: the Gabrieleno Band of Mission Indians: Kizh Nation, Gabrieleno Tongva San Gabriel Band of Mission Indians, Gabrieleno Tongva Nation, Gabrieleno Tongva Indians of California Tribal Council, and Gabrieleno-Tongva Tribe. The SCWD notified the identified tribes via letter on November 11, 2015 describing the proposed project; as of December 11, 2015, (30 days from the date of notification), no responses were received from any of the tribes.

The proposed Project Site has been disturbed and excavated in the past. Construction of the proposed project would occur within previously disturbed areas and no trees or sensitive vegetation within the Project site would be removed during construction. However, the potential exists for impact to occur to previously unrecorded human remains or resources that may be determined to be significant by a California Native American tribe; based on records review of the site, the potential for any impact is considered low. However, as identified in **Section 5.5.b**, given the potential to impact human remains or significant tribal resources, impacts would be potentially significant.

Mitigation Measures: Implementation of mitigation measure **CUL-1** would reduce potentially significant impacts to less than significant.

5.18 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS – Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new and expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. No Impact.

The proposed Project would not generate industrial wastewater or new point sources of wastewater such as mining, animal feed lots, wastewater treatment facilities, etc., that would require an individual permit beyond the capabilities of the existing wastewater treatment facilities serving the City of Santa Clarita or Los Angeles County. Additionally, the proposed Project would result in the delivery of potable water to customers in the North Bouquet Canyon area and would not result in wastewater generation. Therefore, wastewater treatment requirements would not be exceeded and no impacts would occur.

Mitigation Measures: No mitigation measures are required.

b. Less Than Significant Impact.

The proposed Project would extend the SCWD potable water system within its service area to serve the LARC Ranch property and other existing residential and commercial users along the pipeline route in the North Bouquet Canyon area. Project development would not require the construction or expansion of existing water delivery facilities other than those proposed. Therefore, no other additional facilities are required and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c. No Impact.

The Project would not produce substantial amounts of additional runoff to the existing storm water drainage facilities. There would not be a substantial increase in impervious surfaces from implementation of the proposed Project as the roadway would be restored to existing conditions. Project development would not require the construction or expansion of storm water drainage facilities. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

d. Less than Significant Impact.

The Project would construct a pipeline to transmit potable water to meet potable water demands for the LARC Ranch and existing residential and commercial users along the pipeline route. The Project would provide a source of long-term water supply for existing residential and commercial users along the pipeline route in the North Bouquet Canyon area that is a more reliable source to supplement groundwater during drought conditions. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

e. Less than Significant Impact.

The proposed Project would not generate any potential wastewater. Furthermore, the construction of the water pipeline would result in minimal amounts of soil stockpiling and would provide BMPs, such as hay bales, etc., to control the direction of discharge of stormwater away from Bouquet Canyon Creek. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

f. Less Than Significant Impact.

The proposed Project would generate small amounts of solid waste construction debris from the disposal of excess soils, asphalt or other debris. However, demolition activities are not required and much of the excavated soils would be reused on site. The nominal amount of construction debris generated by the proposed Project would not be expected to exceed the permitted capacity of the Sunshine Canyon Landfill, the Antelope Valley Landfill, or the Chiquita Canyon Landfill. Operation of the water pipeline would not generate solid waste. Project implementation would not require additional landfill capacity. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

g. No Impact.

The proposed Project would be required to comply with all applicable laws and regulations governing solid waste. The proposed Project would not affect the County ability to continue to meet the required AB 939 waste diversion requirements. Therefore, no impacts would occur.

Mitigation Measures: No mitigation measures are required.

5.19 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Project Mitigation	Less Than Significant Impact	No Impact	
MANDATORY FINDINGS OF SIGNIFICANCE – Does the project:					
a.	Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a. Less than Significant with Mitigation.

The proposed Project would not be constructed within or immediately adjacent to Bouquet Canyon Creek. The majority of the proposed pipeline would be located below ground within the public roadway right-of-way, while the on-site pipeline associated with the pump station would be connected to pipeline currently installed in an existing bridge structure that crosses over the Bouquet Creek. As described in Section 5.4, Biological Resources, a survey of the Project Site did not identify any sensitive wildlife or plant species, but did identify potential habitat for sensitive wildlife and plant species. Therefore, the proposed Project would have the potential to directly or indirectly impact sensitive species during the construction phase. Mitigation has been identified, including provisions for pre-construction field surveys to determine the presence or absence of sensitive wildlife plant and animal species and any subsequent field actions, to mitigate impacts to less than significant. As discussed in Section 5.5, Cultural Resources, known archeological resources were identified within a 1-mile radius of the Project Site. As such, the construction of the proposed Project could have the potential to unearth unknown archeological resources not previously identified. Accordingly, mitigation has been identified, including the provision to stop work in the event of a find and to coordinate mitigation efforts with a qualified archeologist, to reduce potentially

significant impacts to less than significant. Therefore, the proposed Project would not have any significant impacts on the quality of the natural environment or on evidence of California's history or prehistory.

Mitigation Measures: The following mitigation measures would reduce impacts to wildlife species and cultural resources to less-than-significant.

Biological Resources

All pipeline and on-site pump station construction activities and associated staging areas shall abide by mitigation measures **BIO-1** through **BIO-5** as identified in **Section 5.4, Biological Resources**.

Therefore, impacts would be less than significant with mitigation.

Cultural Resources

All pipeline and on-site pump station construction activities and associated equipment shall abide by mitigation measure **CUL-1** as identified in **Section 5.5, Cultural Resources**.

Therefore, impacts would be less than significant with mitigation.

b. Less than Significant Impact.

Development of the proposed Project would not result in impacts that are individually limited but cumulatively considerable. The proposed Project would be consistent with the SCWD Water Master Plan Update, the CLWA UWMP, and the Santa Clarita Valley Area Plan and help to supply water to existing residential and commercial water users along the pipeline route within the North Bouquet Canyon area. Additionally, the issues relevant to the proposed Project are localized and confined to the immediate Project area. There are no unusual circumstances relating to the project, nor are there any successive projects of the same type in the same place that would render any impacts as significant or cumulatively considerable. No significant cumulatively considerable impacts are anticipated to result from the proposed Project. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c. Less than Significant Impact with Mitigation.

The proposed Project's potential impacts to air quality, greenhouse gas emissions, hazards and hazardous materials, noise, traffic, and other environmental issues have been reviewed. The analysis found that development and operation of the proposed Project would result in less-than-significant adverse effects on human beings, either directly or indirectly for air quality, greenhouse gas emissions, and traffic.

Potentially significant impacts from emergency response and wildlife and from temporary construction noise were identified. Mitigation measures were identified to reduce the impacts to less than significant.

Hazards and Hazardous Materials

All pipeline and pump station construction activities and associated equipment shall abide by mitigation measures **HAZ-1** through **HAZ-3** as identified in **Section 5.8, Hazards and Hazardous Materials**.

Noise

All pipeline and pump station construction activities and associated equipment shall abide by mitigation measures **NOI-1** through **NOI-4** as identified in **Section 5.12, Noise**.

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7.0 LIST OF PREPARERS

LEAD AGENCY

Santa Clarita Water Division

Brent Payne, P.E.

Josephine Ngoon, P.E.

Keith Abercrombie

MITIGATED NEGATIVE DECLARATION PREPARATION

Meridian Consultants LLC

Joe Gibson, Principal

Chris Hampson, Senior Project Manager

Jeff Carr, Cultural Specialist/Senior Planner

Justine Kendall, Project Planner

Victoria Boyd, Staff Planner

Lisa Maturkanic, Administrative Services Manager

Andrea Harsma, Publications Coordinator

Matt Lechuga, Production Coordinator

Bryna Fischer, Editor

Tom Brauer, Graphics Coordinator

BioResource Consultants Inc.

Brian Holly, Vice President, Senior Ecologist

Kennedy/Jenks Consultants

Jeff Ford, Senior Scientist

APPENDIX A

Air Quality and Greenhouse Gas Modeling Data

Appendix A.1

Annual

LARC Ranch Pipeline
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	0.50	1000sqft	0.01	500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Anticipated construction schedule based on 100 feet of pipeline per day

Off-road Equipment - total area graded apx 500 sq. ft.

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment -

Trips and VMT - No hauling trips and specific for each construction phase

Vehicle Trips - Only 1 trip per week for maintenance

Water And Wastewater - No water demand as it is a pipeline project

Solid Waste - No solid waste generation as it is a pipeline project

Construction Off-road Equipment Mitigation - Tier 2 engines for conservative analysis

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	100.00	10.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	5.00	11.00
tblConstructionPhase	PhaseEndDate	1/12/2018	11/17/2017
tblConstructionPhase	PhaseEndDate	12/4/2017	12/15/2017
tblConstructionPhase	PhaseStartDate	12/30/2017	11/6/2017
tblConstructionPhase	PhaseStartDate	11/18/2017	12/1/2017
tblConstructionPhase	PhaseStartDate	8/5/2017	8/7/2017
tblOffRoadEquipment	HorsePower	97.00	89.00
tblOffRoadEquipment	HorsePower	400.00	97.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.20
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks

tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblSolidWaste	SolidWasteGenerationRate	0.62	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	5.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblVehicleTrips	ST_TR	1.32	0.30
tblVehicleTrips	SU_TR	0.68	0.30
tblVehicleTrips	WD_TR	6.97	0.30
tblWater	IndoorWaterUseRate	115,625.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1636	1.5900	0.9573	1.8800e-003	0.0129	0.0885	0.1014	3.8200e-003	0.0816	0.0854	0.0000	170.5700	170.5700	0.0483	0.0000	171.5838
Total	0.1636	1.5900	0.9573	1.8800e-003	0.0129	0.0885	0.1014	3.8200e-003	0.0816	0.0854	0.0000	170.5700	170.5700	0.0483	0.0000	171.5838

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0609	1.4314	1.0946	1.8800e-003	0.0118	0.0442	0.0560	3.3000e-003	0.0441	0.0474	0.0000	170.5698	170.5698	0.0483	0.0000	171.5836
Total	0.0609	1.4314	1.0946	1.8800e-003	0.0118	0.0442	0.0560	3.3000e-003	0.0441	0.0474	0.0000	170.5698	170.5698	0.0483	0.0000	171.5836

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	62.77	9.97	-14.34	0.00	8.38	50.07	44.77	13.61	45.98	44.53	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.3900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.2260	2.2260	9.0000e-005	3.0000e-005	2.2358
Mobile	1.0000e-004	3.5000e-004	1.2800e-003	0.0000	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2752	0.2752	1.0000e-005	0.0000	0.2754
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.5400e-003	8.1000e-004	1.6800e-003	0.0000	2.5000e-004	5.0000e-005	3.0000e-004	7.0000e-005	4.0000e-005	1.1000e-004	0.0000	2.5012	2.5012	1.0000e-004	3.0000e-005	2.5112

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.3900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.2260	2.2260	9.0000e-005	3.0000e-005	2.2358
Mobile	1.0000e-004	3.5000e-004	1.2800e-003	0.0000	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2752	0.2752	1.0000e-005	0.0000	0.2754
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.5400e-003	8.1000e-004	1.6800e-003	0.0000	2.5000e-004	5.0000e-005	3.0000e-004	7.0000e-005	4.0000e-005	1.1000e-004	0.0000	2.5012	2.5012	1.0000e-004	3.0000e-005	2.5112

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/31/2017	7/31/2017	5	1	
2	Grading	Grading	8/1/2017	8/4/2017	5	4	
3	Pipeline Installation	Trenching	8/7/2017	12/29/2017	5	105	
4	Building Construction	Building Construction	11/6/2017	11/17/2017	5	10	
5	Paving	Paving	12/1/2017	12/15/2017	5	11	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pipeline Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Pipeline Installation	Trenchers	2	8.00	80	0.50
Pipeline Installation	Off-Highway Trucks	2	6.00	400	0.38
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Tractors/Loaders/Backhoes	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Pipeline Installation	Signal Boards	1	8.00	6	0.82
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Off-Highway Trucks	2	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Forklifts	2	6.00	89	0.20

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pipeline Installation	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3000e-004	6.3400e-003	3.6200e-003	0.0000		3.9000e-004	3.9000e-004		3.5000e-004	3.5000e-004	0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364
Total	6.3000e-004	6.3400e-003	3.6200e-003	0.0000	2.7000e-004	3.9000e-004	6.6000e-004	3.0000e-005	3.5000e-004	3.8000e-004	0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0247	0.0247	0.0000	0.0000	0.0247
Total	1.0000e-005	1.0000e-005	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0247	0.0247	0.0000	0.0000	0.0247

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9000e-004	4.1300e-003	3.5000e-003	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364
Total	1.9000e-004	4.1300e-003	3.5000e-003	0.0000	1.0000e-004	1.4000e-004	2.4000e-004	1.0000e-005	1.4000e-004	1.5000e-004	0.0000	0.4336	0.4336	1.3000e-004	0.0000	0.4364

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0247	0.0247	0.0000	0.0000	0.0247
Total	1.0000e-005	1.0000e-005	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0247	0.0247	0.0000	0.0000	0.0247

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5100e-003	0.0000	1.5100e-003	8.3000e-004	0.0000	8.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9300e-003	0.0164	0.0136	2.0000e-005		1.1100e-003	1.1100e-003		1.0700e-003	1.0700e-003	0.0000	1.7148	1.7148	2.9000e-004	0.0000	1.7209
Total	1.9300e-003	0.0164	0.0136	2.0000e-005	1.5100e-003	1.1100e-003	2.6200e-003	8.3000e-004	1.0700e-003	1.9000e-003	0.0000	1.7148	1.7148	2.9000e-004	0.0000	1.7209

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.5000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0988	0.0988	1.0000e-005	0.0000	0.0990
Total	4.0000e-005	5.0000e-005	5.5000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0988	0.0988	1.0000e-005	0.0000	0.0990

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.9000e-004	0.0000	5.9000e-004	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4300e-003	0.0149	0.0122	2.0000e-005		8.4000e-004	8.4000e-004		8.4000e-004	8.4000e-004	0.0000	1.7148	1.7148	2.9000e-004	0.0000	1.7209
Total	1.4300e-003	0.0149	0.0122	2.0000e-005	5.9000e-004	8.4000e-004	1.4300e-003	3.2000e-004	8.4000e-004	1.1600e-003	0.0000	1.7148	1.7148	2.9000e-004	0.0000	1.7209

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	5.0000e-005	5.5000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0988	0.0988	1.0000e-005	0.0000	0.0990
Total	4.0000e-005	5.0000e-005	5.5000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0988	0.0988	1.0000e-005	0.0000	0.0990

3.4 Pipeline Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1453	1.4536	0.8072	1.6000e-003		0.0805	0.0805		0.0742	0.0742	0.0000	147.8632	147.8632	0.0448	0.0000	148.8046
Total	0.1453	1.4536	0.8072	1.6000e-003		0.0805	0.0805		0.0742	0.0742	0.0000	147.8632	147.8632	0.0448	0.0000	148.8046

3.4 Pipeline Installation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.5000e-004	8.6200e-003	0.0116	2.0000e-005	6.5000e-004	1.3000e-004	7.8000e-004	1.8000e-004	1.2000e-004	3.1000e-004	0.0000	2.0360	2.0360	1.0000e-005	0.0000	2.0363
Worker	2.8300e-003	4.2000e-003	0.0436	1.1000e-004	8.6400e-003	7.0000e-005	8.7100e-003	2.2900e-003	7.0000e-005	2.3600e-003	0.0000	7.7837	7.7837	4.0000e-004	0.0000	7.7922
Total	3.6800e-003	0.0128	0.0552	1.3000e-004	9.2900e-003	2.0000e-004	9.4900e-003	2.4700e-003	1.9000e-004	2.6700e-003	0.0000	9.8197	9.8197	4.1000e-004	0.0000	9.8285

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0502	1.3150	0.9496	1.6000e-003		0.0393	0.0393		0.0393	0.0393	0.0000	147.8630	147.8630	0.0448	0.0000	148.8044
Total	0.0502	1.3150	0.9496	1.6000e-003		0.0393	0.0393		0.0393	0.0393	0.0000	147.8630	147.8630	0.0448	0.0000	148.8044

3.4 Pipeline Installation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.5000e-004	8.6200e-003	0.0116	2.0000e-005	6.5000e-004	1.3000e-004	7.8000e-004	1.8000e-004	1.2000e-004	3.1000e-004	0.0000	2.0360	2.0360	1.0000e-005	0.0000	2.0363
Worker	2.8300e-003	4.2000e-003	0.0436	1.1000e-004	8.6400e-003	7.0000e-005	8.7100e-003	2.2900e-003	7.0000e-005	2.3600e-003	0.0000	7.7837	7.7837	4.0000e-004	0.0000	7.7922
Total	3.6800e-003	0.0128	0.0552	1.3000e-004	9.2900e-003	2.0000e-004	9.4900e-003	2.4700e-003	1.9000e-004	2.6700e-003	0.0000	9.8197	9.8197	4.1000e-004	0.0000	9.8285

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6700e-003	0.0451	0.0279	4.0000e-005		2.8900e-003	2.8900e-003		2.7000e-003	2.7000e-003	0.0000	3.6151	3.6151	1.0400e-003	0.0000	3.6370
Total	5.6700e-003	0.0451	0.0279	4.0000e-005		2.8900e-003	2.8900e-003		2.7000e-003	2.7000e-003	0.0000	3.6151	3.6151	1.0400e-003	0.0000	3.6370

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	8.2000e-004	1.1000e-003	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.1939	0.1939	0.0000	0.0000	0.1939
Worker	1.8000e-004	2.7000e-004	2.7700e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4942	0.4942	3.0000e-005	0.0000	0.4947
Total	2.6000e-004	1.0900e-003	3.8700e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.2000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.6881	0.6881	3.0000e-005	0.0000	0.6887

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6000e-003	0.0376	0.0269	4.0000e-005		1.9900e-003	1.9900e-003		1.9000e-003	1.9000e-003	0.0000	3.6151	3.6151	1.0400e-003	0.0000	3.6370
Total	2.6000e-003	0.0376	0.0269	4.0000e-005		1.9900e-003	1.9900e-003		1.9000e-003	1.9000e-003	0.0000	3.6151	3.6151	1.0400e-003	0.0000	3.6370

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	8.2000e-004	1.1000e-003	0.0000	6.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.1939	0.1939	0.0000	0.0000	0.1939
Worker	1.8000e-004	2.7000e-004	2.7700e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4942	0.4942	3.0000e-005	0.0000	0.4947
Total	2.6000e-004	1.0900e-003	3.8700e-003	1.0000e-005	6.1000e-004	1.0000e-005	6.2000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.6881	0.6881	3.0000e-005	0.0000	0.6887

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7200e-003	0.0541	0.0398	6.0000e-005		3.3100e-003	3.3100e-003		3.0600e-003	3.0600e-003	0.0000	5.3335	5.3335	1.4800e-003	0.0000	5.3646
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.7200e-003	0.0541	0.0398	6.0000e-005		3.3100e-003	3.3100e-003		3.0600e-003	3.0600e-003	0.0000	5.3335	5.3335	1.4800e-003	0.0000	5.3646

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	5.3000e-004	5.4800e-003	1.0000e-005	1.0900e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9785	0.9785	5.0000e-005	0.0000	0.9796
Total	3.6000e-004	5.3000e-004	5.4800e-003	1.0000e-005	1.0900e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9785	0.9785	5.0000e-005	0.0000	0.9796

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1400e-003	0.0453	0.0373	6.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	5.3335	5.3335	1.4800e-003	0.0000	5.3646
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.1400e-003	0.0453	0.0373	6.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	5.3335	5.3335	1.4800e-003	0.0000	5.3646

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	5.3000e-004	5.4800e-003	1.0000e-005	1.0900e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9785	0.9785	5.0000e-005	0.0000	0.9796
Total	3.6000e-004	5.3000e-004	5.4800e-003	1.0000e-005	1.0900e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.9785	0.9785	5.0000e-005	0.0000	0.9796

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0000e-004	3.5000e-004	1.2800e-003	0.0000	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2752	0.2752	1.0000e-005	0.0000	0.2754
Unmitigated	1.0000e-004	3.5000e-004	1.2800e-003	0.0000	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2752	0.2752	1.0000e-005	0.0000	0.2754

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.15	0.15	0.15	664	664
Total	0.15	0.15	0.15	664	664

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511172	0.060004	0.180590	0.138995	0.042398	0.006681	0.016070	0.032568	0.001938	0.002493	0.004370	0.000586	0.002135

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	1.7242	1.7242	8.0000e-005	2.0000e-005	1.7309
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	1.7242	1.7242	8.0000e-005	2.0000e-005	1.7309
NaturalGas Mitigated	5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5019	0.5019	1.0000e-005	1.0000e-005	0.5049
NaturalGas Unmitigated	5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5019	0.5019	1.0000e-005	1.0000e-005	0.5049

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	9405	5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5019	0.5019	1.0000e-005	1.0000e-005	0.5049
Total		5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5019	0.5019	1.0000e-005	1.0000e-005	0.5049

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	9405	5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5019	0.5019	1.0000e-005	1.0000e-005	0.5049
Total		5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5019	0.5019	1.0000e-005	1.0000e-005	0.5049

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	6025	1.7242	8.0000e-005	2.0000e-005	1.7309
Total		1.7242	8.0000e-005	2.0000e-005	1.7309

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	6025	1.7242	8.0000e-005	2.0000e-005	1.7309
Total		1.7242	8.0000e-005	2.0000e-005	1.7309

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.3900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	2.3900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	2.3900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	5.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005	0.0000
Total	2.3900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Appendix A.2

Summer

LARC Ranch Pipeline
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	0.50	1000sqft	0.01	500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Anticipated construction schedule based on 100 feet of pipeline per day

Off-road Equipment - total area graded apx 500 sq. ft.

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment -

Trips and VMT - No hauling trips and specific for each construction phase

Vehicle Trips - Only 1 trip per week for maintenance

Water And Wastewater - No water demand as it is a pipeline project

Solid Waste - No solid waste generation as it is a pipeline project

Construction Off-road Equipment Mitigation - Tier 2 engines for conservative analysis

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	100.00	10.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	5.00	11.00
tblConstructionPhase	PhaseEndDate	1/12/2018	11/17/2017
tblConstructionPhase	PhaseEndDate	12/4/2017	12/15/2017
tblConstructionPhase	PhaseStartDate	12/30/2017	11/6/2017
tblConstructionPhase	PhaseStartDate	11/18/2017	12/1/2017
tblConstructionPhase	PhaseStartDate	8/5/2017	8/7/2017
tblOffRoadEquipment	HorsePower	97.00	89.00
tblOffRoadEquipment	HorsePower	400.00	97.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.20
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks

tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblSolidWaste	SolidWasteGenerationRate	0.62	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	5.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblVehicleTrips	ST_TR	1.32	0.30
tblVehicleTrips	SU_TR	0.68	0.30
tblVehicleTrips	WD_TR	6.97	0.30
tblWater	IndoorWaterUseRate	115,625.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.0255	37.8339	24.7462	0.0468	0.8087	2.1415	2.5228	0.4286	1.9748	2.0762	0.0000	4,593.9288	4,593.9288	1.2570	0.0000	4,620.3249
Total	4.0255	37.8339	24.7462	0.0468	0.8087	2.1415	2.5228	0.4286	1.9748	2.0762	0.0000	4,593.9288	4,593.9288	1.2570	0.0000	4,620.3249

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.5998	33.5974	26.9972	0.0468	0.3814	1.1550	1.4595	0.1762	1.1364	1.2176	0.0000	4,593.9288	4,593.9288	1.2570	0.0000	4,620.3249
Total	1.5998	33.5974	26.9972	0.0468	0.3814	1.1550	1.4595	0.1762	1.1364	1.2176	0.0000	4,593.9288	4,593.9288	1.2570	0.0000	4,620.3249

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	60.26	11.20	-9.10	0.00	52.84	46.06	42.15	58.89	42.46	41.36	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Energy	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
Mobile	5.5000e-004	1.8100e-003	7.1800e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	3.0000e-005	4.0000e-004		1.7315	1.7315	6.0000e-005		1.7328
Total	0.0139	4.3400e-003	9.3500e-003	4.0000e-005	1.4100e-003	2.2000e-004	1.6300e-003	3.8000e-004	2.2000e-004	5.9000e-004		4.7630	4.7630	1.2000e-004	6.0000e-005	4.7828

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Energy	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
Mobile	5.5000e-004	1.8100e-003	7.1800e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	3.0000e-005	4.0000e-004		1.7315	1.7315	6.0000e-005		1.7328
Total	0.0139	4.3400e-003	9.3500e-003	4.0000e-005	1.4100e-003	2.2000e-004	1.6300e-003	3.8000e-004	2.2000e-004	5.9000e-004		4.7630	4.7630	1.2000e-004	6.0000e-005	4.7828

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/31/2017	7/31/2017	5	1	
2	Grading	Grading	8/1/2017	8/4/2017	5	4	
3	Pipeline Installation	Trenching	8/7/2017	12/29/2017	5	105	
4	Building Construction	Building Construction	11/6/2017	11/17/2017	5	10	
5	Paving	Paving	12/1/2017	12/15/2017	5	11	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pipeline Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Pipeline Installation	Trenchers	2	8.00	80	0.50
Pipeline Installation	Off-Highway Trucks	2	6.00	400	0.38
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Tractors/Loaders/Backhoes	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Pipeline Installation	Signal Boards	1	8.00	6	0.82
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Off-Highway Trucks	2	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Forklifts	2	6.00	89	0.20

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pipeline Installation	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment
 Water Exposed Area
 Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2694	12.6852	7.2319	9.3300e-003		0.7705	0.7705		0.7089	0.7089		955.8663	955.8663	0.2929		962.0167
Total	1.2694	12.6852	7.2319	9.3300e-003	0.5303	0.7705	1.3007	0.0573	0.7089	0.7661		955.8663	955.8663	0.2929		962.0167

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558
Total	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	0.3847	8.2535	6.9975	9.3300e-003		0.2826	0.2826		0.2826	0.2826	0.0000	955.8663	955.8663	0.2929		962.0167
Total	0.3847	8.2535	6.9975	9.3300e-003	0.2068	0.2826	0.4894	0.0223	0.2826	0.3049	0.0000	955.8663	955.8663	0.2929		962.0167

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558
Total	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.9673	8.1932	6.7871	9.7000e-003		0.5549	0.5549		0.5350	0.5350		945.1144	945.1144	0.1601		948.4772
Total	0.9673	8.1932	6.7871	9.7000e-003	0.7528	0.5549	1.3077	0.4138	0.5350	0.9488		945.1144	945.1144	0.1601		948.4772

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558
Total	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2936	0.0000	0.2936	0.1614	0.0000	0.1614			0.0000			0.0000
Off-Road	0.7171	7.4494	6.0904	9.7000e-003		0.4175	0.4175		0.4175	0.4175	0.0000	945.1144	945.1144	0.1601		948.4772
Total	0.7171	7.4494	6.0904	9.7000e-003	0.2936	0.4175	0.7111	0.1614	0.4175	0.5789	0.0000	945.1144	945.1144	0.1601		948.4772

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558
Total	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558

3.4 Pipeline Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7673	27.6868	15.3754	0.0306		1.5342	1.5342		1.4126	1.4126		3,104.5947	3,104.5947	0.9413		3,124.3610
Total	2.7673	27.6868	15.3754	0.0306		1.5342	1.5342		1.4126	1.4126		3,104.5947	3,104.5947	0.9413		3,124.3610

3.4 Pipeline Installation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0153	0.1572	0.1873	4.3000e-004	0.0125	2.5400e-003	0.0150	3.5600e-003	2.3300e-003	5.8900e-003		42.8995	42.8995	3.0000e-004		42.9058
Worker	0.0563	0.0707	0.8819	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.5900	171.5900	8.4500e-003		171.7674
Total	0.0716	0.2279	1.0693	2.5500e-003	0.1802	3.8900e-003	0.1841	0.0480	3.5700e-003	0.0516		214.4895	214.4895	8.7500e-003		214.6732

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9561	25.0468	18.0867	0.0306		0.7489	0.7489		0.7489	0.7489	0.0000	3,104.5947	3,104.5947	0.9413		3,124.3609
Total	0.9561	25.0468	18.0867	0.0306		0.7489	0.7489		0.7489	0.7489	0.0000	3,104.5947	3,104.5947	0.9413		3,124.3609

3.4 Pipeline Installation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0153	0.1572	0.1873	4.3000e-004	0.0125	2.5400e-003	0.0150	3.5600e-003	2.3300e-003	5.8900e-003		42.8995	42.8995	3.0000e-004		42.9058
Worker	0.0563	0.0707	0.8819	2.1200e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		171.5900	171.5900	8.4500e-003		171.7674
Total	0.0716	0.2279	1.0693	2.5500e-003	0.1802	3.8900e-003	0.1841	0.0480	3.5700e-003	0.0516		214.4895	214.4895	8.7500e-003		214.6732

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1339	9.0239	5.5768	8.1800e-003		0.5785	0.5785		0.5399	0.5399		796.9944	796.9944	0.2302		801.8286
Total	1.1339	9.0239	5.5768	8.1800e-003		0.5785	0.5785		0.5399	0.5399		796.9944	796.9944	0.2302		801.8286

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0153	0.1572	0.1873	4.3000e-004	0.0125	2.5400e-003	0.0150	3.5600e-003	2.3300e-003	5.8900e-003		42.8995	42.8995	3.0000e-004		42.9058
Worker	0.0375	0.0472	0.5880	1.4200e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		114.3934	114.3934	5.6300e-003		114.5116
Total	0.0528	0.2043	0.7753	1.8500e-003	0.1243	3.4400e-003	0.1277	0.0332	3.1600e-003	0.0364		157.2928	157.2928	5.9300e-003		157.4174

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5193	7.5243	5.3702	8.1800e-003		0.3988	0.3988		0.3807	0.3807	0.0000	796.9944	796.9944	0.2302		801.8286
Total	0.5193	7.5243	5.3702	8.1800e-003		0.3988	0.3988		0.3807	0.3807	0.0000	796.9944	796.9944	0.2302		801.8286

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0153	0.1572	0.1873	4.3000e-004	0.0125	2.5400e-003	0.0150	3.5600e-003	2.3300e-003	5.8900e-003		42.8995	42.8995	3.0000e-004		42.9058
Worker	0.0375	0.0472	0.5880	1.4200e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		114.3934	114.3934	5.6300e-003		114.5116
Total	0.0528	0.2043	0.7753	1.8500e-003	0.1243	3.4400e-003	0.1277	0.0332	3.1600e-003	0.0364		157.2928	157.2928	5.9300e-003		157.4174

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572		1,068.9366	1,068.9366	0.2968		1,075.1698
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572		1,068.9366	1,068.9366	0.2968		1,075.1698

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0849	1.0583	2.5500e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		205.9080	205.9080	0.0101		206.1209
Total	0.0676	0.0849	1.0583	2.5500e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		205.9080	205.9080	0.0101		206.1209

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3892	8.2378	6.7829	0.0111		0.3001	0.3001		0.3001	0.3001	0.0000	1,068.9366	1,068.9366	0.2968		1,075.1698
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3892	8.2378	6.7829	0.0111		0.3001	0.3001		0.3001	0.3001	0.0000	1,068.9366	1,068.9366	0.2968		1,075.1698

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0676	0.0849	1.0583	2.5500e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		205.9080	205.9080	0.0101		206.1209
Total	0.0676	0.0849	1.0583	2.5500e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		205.9080	205.9080	0.0101		206.1209

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.5000e-004	1.8100e-003	7.1800e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	3.0000e-005	4.0000e-004		1.7315	1.7315	6.0000e-005		1.7328
Unmitigated	5.5000e-004	1.8100e-003	7.1800e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	3.0000e-005	4.0000e-004		1.7315	1.7315	6.0000e-005		1.7328

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.15	0.15	0.15	664	664
Total	0.15	0.15	0.15	664	664

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511172	0.060004	0.180590	0.138995	0.042398	0.006681	0.016070	0.032568	0.001938	0.002493	0.004370	0.000586	0.002135

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
NaturalGas Mitigated	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
NaturalGas Unmitigated	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	25.7671	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
Total		2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0.0257671	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
Total		2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Unmitigated	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.9000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Total	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.9000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Total	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Appendix A.3

Winter

LARC Ranch Pipeline
 South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	0.50	1000sqft	0.01	500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Anticipated construction schedule based on 100 feet of pipeline per day

Off-road Equipment - total area graded apx 500 sq. ft.

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment -

Trips and VMT - No hauling trips and specific for each construction phase

Vehicle Trips - Only 1 trip per week for maintenance

Water And Wastewater - No water demand as it is a pipeline project

Solid Waste - No solid waste generation as it is a pipeline project

Construction Off-road Equipment Mitigation - Tier 2 engines for conservative analysis

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	100.00	10.00
tblConstructionPhase	NumDays	2.00	4.00
tblConstructionPhase	NumDays	5.00	11.00
tblConstructionPhase	PhaseEndDate	1/12/2018	11/17/2017
tblConstructionPhase	PhaseEndDate	12/4/2017	12/15/2017
tblConstructionPhase	PhaseStartDate	12/30/2017	11/6/2017
tblConstructionPhase	PhaseStartDate	11/18/2017	12/1/2017
tblConstructionPhase	PhaseStartDate	8/5/2017	8/7/2017
tblOffRoadEquipment	HorsePower	97.00	89.00
tblOffRoadEquipment	HorsePower	400.00	97.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.20
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks

tblOffRoadEquipment	OffRoadEquipmentType		Signal Boards
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblSolidWaste	SolidWasteGenerationRate	0.62	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	5.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblVehicleTrips	ST_TR	1.32	0.30
tblVehicleTrips	SU_TR	0.68	0.30
tblVehicleTrips	WD_TR	6.97	0.30
tblWater	IndoorWaterUseRate	115,625.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.0301	37.8530	24.6269	0.0465	0.8087	2.1415	2.5229	0.4286	1.9748	2.0762	0.0000	4,570.114 2	4,570.114 2	1.2570	0.0000	4,596.510 5
Total	4.0301	37.8530	24.6269	0.0465	0.8087	2.1415	2.5229	0.4286	1.9748	2.0762	0.0000	4,570.114 2	4,570.114 2	1.2570	0.0000	4,596.510 5

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.6044	33.6164	26.8779	0.0465	0.3814	1.1551	1.4595	0.1762	1.1364	1.2176	0.0000	4,570.114 2	4,570.114 2	1.2570	0.0000	4,596.510 5
Total	1.6044	33.6164	26.8779	0.0465	0.3814	1.1551	1.4595	0.1762	1.1364	1.2176	0.0000	4,570.114 2	4,570.114 2	1.2570	0.0000	4,596.510 5

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	60.19	11.19	-9.14	0.00	52.84	46.06	42.15	58.89	42.46	41.35	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Energy	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
Mobile	5.6000e-004	1.9100e-003	6.9300e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	3.0000e-005	4.0000e-004		1.6486	1.6486	6.0000e-005		1.6499
Total	0.0139	4.4400e-003	9.1000e-003	4.0000e-005	1.4100e-003	2.2000e-004	1.6300e-003	3.8000e-004	2.2000e-004	5.9000e-004		4.6802	4.6802	1.2000e-004	6.0000e-005	4.6999

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Energy	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
Mobile	5.6000e-004	1.9100e-003	6.9300e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	3.0000e-005	4.0000e-004		1.6486	1.6486	6.0000e-005		1.6499
Total	0.0139	4.4400e-003	9.1000e-003	4.0000e-005	1.4100e-003	2.2000e-004	1.6300e-003	3.8000e-004	2.2000e-004	5.9000e-004		4.6802	4.6802	1.2000e-004	6.0000e-005	4.6999

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	7/31/2017	7/31/2017	5	1	
2	Grading	Grading	8/1/2017	8/4/2017	5	4	
3	Pipeline Installation	Trenching	8/7/2017	12/29/2017	5	105	
4	Building Construction	Building Construction	11/6/2017	11/17/2017	5	10	
5	Paving	Paving	12/1/2017	12/15/2017	5	11	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Pipeline Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Pipeline Installation	Trenchers	2	8.00	80	0.50
Pipeline Installation	Off-Highway Trucks	2	6.00	400	0.38
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Tractors/Loaders/Backhoes	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Pipeline Installation	Signal Boards	1	8.00	6	0.82
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Off-Highway Trucks	2	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Forklifts	2	6.00	89	0.20

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Pipeline Installation	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.2694	12.6852	7.2319	9.3300e-003		0.7705	0.7705		0.7089	0.7089		955.8663	955.8663	0.2929		962.0167
Total	1.2694	12.6852	7.2319	9.3300e-003	0.5303	0.7705	1.3007	0.0573	0.7089	0.7661		955.8663	955.8663	0.2929		962.0167

3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022
Total	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	0.3847	8.2535	6.9975	9.3300e-003		0.2826	0.2826		0.2826	0.2826	0.0000	955.8663	955.8663	0.2929		962.0167
Total	0.3847	8.2535	6.9975	9.3300e-003	0.2068	0.2826	0.4894	0.0223	0.2826	0.3049	0.0000	955.8663	955.8663	0.2929		962.0167

3.2 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022
Total	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022

3.3 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.9673	8.1932	6.7871	9.7000e-003		0.5549	0.5549		0.5350	0.5350		945.1144	945.1144	0.1601		948.4772
Total	0.9673	8.1932	6.7871	9.7000e-003	0.7528	0.5549	1.3077	0.4138	0.5350	0.9488		945.1144	945.1144	0.1601		948.4772

3.3 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022
Total	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2936	0.0000	0.2936	0.1614	0.0000	0.1614			0.0000			0.0000
Off-Road	0.7171	7.4494	6.0904	9.7000e-003		0.4175	0.4175		0.4175	0.4175	0.0000	945.1144	945.1144	0.1601		948.4772
Total	0.7171	7.4494	6.0904	9.7000e-003	0.2936	0.4175	0.7111	0.1614	0.4175	0.5789	0.0000	945.1144	945.1144	0.1601		948.4772

3.3 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022
Total	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022

3.4 Pipeline Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7673	27.6868	15.3754	0.0306		1.5342	1.5342		1.4126	1.4126		3,104.5947	3,104.5947	0.9413		3,124.3610
Total	2.7673	27.6868	15.3754	0.0306		1.5342	1.5342		1.4126	1.4126		3,104.5947	3,104.5947	0.9413		3,124.3610

3.4 Pipeline Installation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0167	0.1610	0.2270	4.3000e-004	0.0125	2.5600e-003	0.0151	3.5600e-003	2.3600e-003	5.9200e-003		42.5388	42.5388	3.1000e-004		42.5454
Worker	0.0574	0.0776	0.8097	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9291	160.9291	8.4500e-003		161.1065
Total	0.0740	0.2387	1.0367	2.4200e-003	0.1802	3.9100e-003	0.1841	0.0480	3.6000e-003	0.0516		203.4680	203.4680	8.7600e-003		203.6519

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9561	25.0468	18.0867	0.0306		0.7489	0.7489		0.7489	0.7489	0.0000	3,104.5947	3,104.5947	0.9413		3,124.3609
Total	0.9561	25.0468	18.0867	0.0306		0.7489	0.7489		0.7489	0.7489	0.0000	3,104.5947	3,104.5947	0.9413		3,124.3609

3.4 Pipeline Installation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0167	0.1610	0.2270	4.3000e-004	0.0125	2.5600e-003	0.0151	3.5600e-003	2.3600e-003	5.9200e-003		42.5388	42.5388	3.1000e-004		42.5454
Worker	0.0574	0.0776	0.8097	1.9900e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2400e-003	0.0457		160.9291	160.9291	8.4500e-003		161.1065
Total	0.0740	0.2387	1.0367	2.4200e-003	0.1802	3.9100e-003	0.1841	0.0480	3.6000e-003	0.0516		203.4680	203.4680	8.7600e-003		203.6519

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1339	9.0239	5.5768	8.1800e-003		0.5785	0.5785		0.5399	0.5399		796.9944	796.9944	0.2302		801.8286
Total	1.1339	9.0239	5.5768	8.1800e-003		0.5785	0.5785		0.5399	0.5399		796.9944	796.9944	0.2302		801.8286

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0167	0.1610	0.2270	4.3000e-004	0.0125	2.5600e-003	0.0151	3.5600e-003	2.3600e-003	5.9200e-003		42.5388	42.5388	3.1000e-004			42.5454
Worker	0.0382	0.0518	0.5398	1.3300e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2861	107.2861	5.6300e-003			107.4043
Total	0.0549	0.2128	0.7668	1.7600e-003	0.1243	3.4600e-003	0.1278	0.0332	3.1900e-003	0.0364		149.8249	149.8249	5.9400e-003			149.9497

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.5193	7.5243	5.3702	8.1800e-003		0.3988	0.3988		0.3807	0.3807	0.0000	796.9944	796.9944	0.2302			801.8286
Total	0.5193	7.5243	5.3702	8.1800e-003		0.3988	0.3988		0.3807	0.3807	0.0000	796.9944	796.9944	0.2302			801.8286

3.5 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0167	0.1610	0.2270	4.3000e-004	0.0125	2.5600e-003	0.0151	3.5600e-003	2.3600e-003	5.9200e-003		42.5388	42.5388	3.1000e-004		42.5454
Worker	0.0382	0.0518	0.5398	1.3300e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2861	107.2861	5.6300e-003		107.4043
Total	0.0549	0.2128	0.7668	1.7600e-003	0.1243	3.4600e-003	0.1278	0.0332	3.1900e-003	0.0364		149.8249	149.8249	5.9400e-003		149.9497

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572		1,068.9366	1,068.9366	0.2968		1,075.1698
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0406	9.8344	7.2432	0.0111		0.6018	0.6018		0.5572	0.5572		1,068.9366	1,068.9366	0.2968		1,075.1698

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0688	0.0931	0.9716	2.3900e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		193.1150	193.1150	0.0101		193.3278
Total	0.0688	0.0931	0.9716	2.3900e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		193.1150	193.1150	0.0101		193.3278

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3892	8.2378	6.7829	0.0111		0.3001	0.3001		0.3001	0.3001	0.0000	1,068.9366	1,068.9366	0.2968		1,075.1698
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.3892	8.2378	6.7829	0.0111		0.3001	0.3001		0.3001	0.3001	0.0000	1,068.9366	1,068.9366	0.2968		1,075.1698

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0688	0.0931	0.9716	2.3900e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		193.1150	193.1150	0.0101		193.3278
Total	0.0688	0.0931	0.9716	2.3900e-003	0.2012	1.6200e-003	0.2028	0.0534	1.4900e-003	0.0549		193.1150	193.1150	0.0101		193.3278

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.6000e-004	1.9100e-003	6.9300e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	3.0000e-005	4.0000e-004		1.6486	1.6486	6.0000e-005		1.6499
Unmitigated	5.6000e-004	1.9100e-003	6.9300e-003	2.0000e-005	1.4100e-003	3.0000e-005	1.4400e-003	3.8000e-004	3.0000e-005	4.0000e-004		1.6486	1.6486	6.0000e-005		1.6499

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.15	0.15	0.15	664	664
Total	0.15	0.15	0.15	664	664

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.511172	0.060004	0.180590	0.138995	0.042398	0.006681	0.016070	0.032568	0.001938	0.002493	0.004370	0.000586	0.002135

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
NaturalGas Mitigated	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
NaturalGas Unmitigated	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	25.7671	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
Total		2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0.0257671	2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499
Total		2.8000e-004	2.5300e-003	2.1200e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0314	3.0314	6.0000e-005	6.0000e-005	3.0499

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Unmitigated	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.9000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Total	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.1700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.9000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004
Total	0.0131	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.1000e-004	1.1000e-004	0.0000		1.2000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

APPENDIX B

Biological Resources Assessment

**LARC RANCH WATER PIPELINE PROJECT
BIOLOGICAL SURVEY AND HABITAT ASSESSMENT
SANTA CLARITA, LOS ANGELES COUNTY, CALIFORNIA**

Prepared for:
Meridian Consultants LLC
910 Hampshire Road, Suite V
Westlake Village CA 91361

Prepared by:



2016

Table of Contents

1.0 Introduction 1

 1.1 Project Description 1

 1.2 Environmental Setting 1

2.0 Methodology 5

 2.1 Literature and Database Review 5

 2.2 Survey Methods 5

 2.3 Special-Status Plants and Wildlife..... 6

3.0 Results 7

 3.1 Existing Conditions..... 7

 3.2 General Wildlife..... 7

 3.3 Special-Status Plant and Wildlife Species..... 8

 3.3.1 Special-Status Plant Species..... 8

 3.3.2 Special-Status Wildlife Species 8

4.0 Management Recommendations for Impact Avoidance 11

5.0 Conclusion..... 12

6.0 References 13

List of Figures

Figure 1. LARC Ranch water pipeline project vicinity 3

Figure 2. LARC Ranch water pipeline project location 4

Figure 3. CNDDDB occurrences within the vicinity of project area 9

List of Appendices

Appendix A: Special-status Plant and Wildlife Species Compendium

Appendix B: Plant and Wildlife Species Compendium

Appendix C: Site Photographs

1.0 INTRODUCTION

This report documents and describes the existing conditions of the biological resources in the LARC Ranch Water Pipeline Project (“Project”) area and identifies potential impacts to biological resources that may result from construction and implementation of the Project. BioResource Consultants, Inc. (BRC) has prepared this report for the analysis of biological resources, including potential occurrence of special-status species and their habitats in the Project area.

1.1 PROJECT DESCRIPTION

The proposed water pipeline will expand the existing Santa Clarita Water District (SCWD) by extending approximately 9,500 linear feet of new 12-inch transmission main portable service to the LARC Ranch located at 29800 North Bouquet Canyon Road in unincorporated Los Angeles County.

The Project site consists of an alignment approximately 10 feet wide starting at the point of connection with the existing SCWD 14-inch water line located near the entrance to the Kenyon Scudder Detention School at 28750 Bouquet Canyon Road and will extend to LARC Ranch, located approximately 1,500 feet north of the Vasquez Canyon Road intersection with North Bouquet Canyon Road. The pipeline will be located within the existing Bouquet Canyon Road right-of-way. The project as proposed would also include an on-site booster pump station and pipeline located on LARC grounds to connect and fill the existing 0.36 MG storage tank from the new service meter. The on-site pump station would include two 10 horsepower (hp) pumps within a (less than 200 square-foot) block wall building. The pump station would be approximately 10-feet high and located adjacent to similar type of walled enclosures. A new 4-inch polyvinyl chloride (PVC) pipeline would extend approximately 700 feet from a SCWD service meter to the pump station. Discharge pipeline from the pump would extend approximately 30 feet to connect to an existing 8-inch LARC pipeline that extends to the 0.36 MG tank.

1.2 ENVIRONMENTAL SETTING

The Project is located northeast of the City of Santa Clarita, Los Angeles County, California (Figure 1). The Project is situated along Bouquet Canyon Road to the east of Copper Hill Drive approximately 0.5 miles north of Vasquez Canyon Road (Figure 2), and is located within the *Mint Canyon* U.S. Geological Survey (USGS) 7.5-minute quadrangle.

The alignment area is heavily disturbed as a result of roadways, residential development, utility maintenance, and road maintenance activities. The northeast portion of the Project area is developed and supports scattered residences and farms, and the southwest portion of the Project area supports several small commercial buildings, residential areas, and trailer parks. Topography of the site ranges from the 1,430 to 1,560 above mean sea level. The Project alignment is generally adjacent to Bouquet Canyon Creek, but crosses Bouquet Canyon Creek

via an existing pipeline utility bridge on the LARC Ranch. Soils along the alignment vary from silty sand to silty gravely sand, and range from loose to very dense.



— Project Location



Figure 1. LARC Ranch Water Pipeline Project vicinity.



Figure 2. LARC Ranch Water Pipeline Project location.

2.0 METHODOLOGY

Prior to implementing biological surveys, standard database searches were conducted and reports from previous surveys in the area were reviewed to obtain pertinent information regarding special-status species in the Project vicinity. The results of these preliminary database searches provided a basis for addressing the potential appropriate special-status species within the Project area.

2.1 LITERATURE AND DATABASE REVIEW

Information about documented special-status species and habitats was obtained from the California Natural Diversity Database (CNDDDB; CDFW 2003). The CNDDDB search included U.S. Geological Survey (USGS) 7.5-minute quadrangles: *Agua Dulce*, *Green Valley*, *Mint Canyon*, *Newhall*, *Oat Mountain*, *San Fernando*, *Sleepy Valley*, *Sunland*, and *Warm Springs Mountain*.

Additional literature and databases referenced include:

- *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2010)
- *The Jepson Manual: Higher Plants of California* (Baldwin 2012)
- *A Manual of California Vegetation* (Sawyer et al. 2009)
- *The CalFlora Database* (CalFlora 2012)
- *eBird* website (Cornell Lab of Ornithology and National Audubon Society, Inc. 2012)
- *California Herps: A Guide to the Amphibians and Reptiles of California* website (California Herps. 2012)
- *USFWS Critical Habitat Portal* website (USFWS 2012)
- *California Wildlife Habitat Relationships software* (CDFW 2005)

2.2 SURVEY METHODS

On October 21, 2015, BRC biologist Matt Schaap, who is familiar with the natural resources and special-status species of the region, conducted a reconnaissance-level natural resources survey of the Project area. The survey area included the entire Project area and a 100-foot buffer to analyze the potential for special-status species or their habitat.

The Project area was methodically surveyed on foot to document the existing conditions, wildlife and plant species present. The field survey was not conducted during the optimum survey period for all of the special-status plant and wildlife species known to occur in the region. Therefore, the objective of the field survey was to determine the likelihood of occurrence of any special-status plant or wildlife species based on the presence/absence of suitable habitat and other natural history elements that might predict their occurrence.

The survey conditions and timing of the survey were deemed suitable for determining potential biological constraints for the proposed Project. The biologists recorded all dominant plant species encountered during the field surveys. Scientific nomenclature follows the *Jepson*

Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2012).

Surveys for wildlife species included searching for and identifying species' diagnostic sign (i.e. audible calls, prints, scat, nests, skeletal remains, burrows, etc.) and habitat features (i.e. rock or debris piles, cavities, and rock outcrops) that may attract and/or support special-status species. Taxonomy and nomenclature for wildlife generally follows Collins and Taggart (2009) for amphibians and reptiles, American Ornithologists Union (AOU 1998) for birds, and Baker et al. (2003) for mammals.

2.3 SPECIAL-STATUS PLANTS AND WILDLIFE

Plants or wildlife may be considered to have special-status due to declining populations, vulnerability to habitat change, restricted distributions, or insufficient knowledge of the species' biological status.

Using information from the various listed sources and floral and faunal surveys of the area, the potential for special-status species to occur within the Project area was assessed as high, medium, low, or none based on the following criteria:

- High: CNDDDB or other documented occurrences have been recorded within one mile of the Project and suitable habitat is present (suitable nesting or roosting habitat for bird and bat species). Individuals were observed during field surveys, or the species could be present.
- Medium: CNDDDB or other documented occurrences have been recorded within five miles of the Project area and suitable habitat is present (suitable nesting or roosting habitat or high quality foraging areas for bird and bat species). Individuals were not observed during field surveys; however, the species could be present.
- Low: Suitable or marginal habitat may occur in the Project area but; no CNDDDB records of the species have been recorded within recent years, records of the species within five miles of the Project area are suspected to be now extirpated or potentially misidentified with other species, or individuals were not observed during field surveys and are not anticipated to be present. For bird and bat species, this category may be used for species that are documented but likely to be only transient through the area during foraging or migratory movements or no suitable nesting or roosting habitat is present.
- None: No suitable habitat present within the Project area and no CNDDDB records of the species have been recorded within recent years, records of the species within five miles of the Project Area, or the Project Area are outside of known range of the species.

Special-status plant and wildlife species known to occur or with the potential to occur are listed in Table 2 (Appendix A).

3.0 RESULTS

3.1 EXISTING CONDITIONS

Vegetation within the Project area has largely been disturbed as a result of residential development, utility maintenance, and road maintenance.

Areas of natural vegetation communities are located northeast of Hayfork Road to the LARC Ranch staging areas primarily on the northwest section of the Project alignment and dominated by Annual Brome Grasslands (*Bromus (diandrus, hordeaceus)-Brachypodium distachyon* Herbaceous Semi-Natural Alliance, Sawyer 2009) and Mulefat Thickets (*Baccharis salicifolia* Shrubland Alliance) along Bouquet Canyon Creek. Vegetation within these vegetation communities is dominated by Fremont cottonwood (*Populus fremontii*), big sagebrush (*Artemisia tridentata*), California buckwheat (*Eriogonum fasciculatum*), mulefat (*Baccharis salicifolia*), annual ragweed (*Ambrosia artemisiifolia*), coastal sage brush (*Artemisia californica*), slim oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), foxtail brome (*Bromus madritensis* ssp. *rubens*), downy chess (*Bromus tectorum*), tocalote (*Centaurea melitensis*), beavertail (*Opuntia basilaris*), bladderpod (*Peritoma arborea*), California sycamore (*Platanus racemosa*), coast live oak (*Quercus agrifolia*), arroyo willow (*Salix lasiolepis*), and blue elderberry (*Sambucus nigra* ssp. *caerulea*).

The Project alignment southwest of Hayfork Road to the south staging area is dominated by ruderal and landscaped ornamental vegetation consisting of tree of heaven (*Ailanthus altissima*), black mustard (*Brassica nigra*), coyote gourd (*Cucurbita palmate*), coastal heron's bill (*Erodium cicutarium*), blue gum (*Eucalyptus globulus*), China berry tree (*Melia azedarach*), oleander (*Nerium oleander*), tree tobacco (*Nicotiana glauca*), Aleppo pine (*Pinus halepensis*), Peruvian pepper tree (*Schinus molle*), sow thistle (*Sonchus oleraceus*), and tamarisk (*Tamarix ramosissima*). A complete list of plants species observed is provided in Appendix B.

3.2 GENERAL WILDLIFE

Common wildlife species observed within the Project area include Great Basin fence lizard (*Sceloporus occidentalis longipes*), western side-blotched lizard (*Uta stansburiana elegans*), western scrub-jay (*Aphelocoma californica*), red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), lark sparrow (*Chondestes grammacus*), common raven (*Corvus corax*), California towhee (*Melospiza crissalis*), savannah sparrow (*Passerculus sandwichensis*), phainopepla (*Phainopepla nitens*), rock wren (*Salpinctes obsoletus*), Say's phoebe (*Sayornis saya*), white-crowned sparrow (*Zonotrichia leucophrys*), California ground squirrel (*Otospermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), and Botta's pocket gopher (*Thomomys bottae*). Mammal observations were a combination of direct observation and from tracks or scat observed on site.

A complete list of wildlife observed within the Project area is provided in Appendix B.

3.3 SPECIAL-STATUS PLANT AND WILDLIFE SPECIES

3.3.1 Special-Status Plant Species

Several special-status plant species are documented to occur in the Project vicinity. The survey revealed suitable habitat within the Project area for slender mariposa-lilies (*Calochortus clavatus* var. *gracilis*), a California Rare Plant Rank (CRPR) 1B.2, and Peirson's morning-glory (*Calystegia peirsonii*), CRPR 4.2. However, no special-status species were observed within the Project area at the time of the survey.

Suitable annual grassland habitat for slender mariposa-lilies is present along the Project alignment from Hayfork Road to Lombardi Farm, and to the south the LARC Ranch. A search of the CNDDDB identified a population of slender mariposa-lily approximately 0.6 miles east of the Project area (CNDDDB Occurrence 191) and several additional sites located within three miles of the site. Based on the presence of suitable habitat and records within the Project vicinity, slender mariposa-lily has a moderate potential to be present within the Project area.

Suitable annual grassland habitat for Peirson's morning-glory is present along the Project alignment from Hayfork Road to Lombardi Farm, and to the south the LARC Ranch. A search of the CNDDDB identified a population approximately 1.6 miles east of the Project area (CNDDDB Occurrence 191). Plummer's mariposa lily has a moderate potential to be present within the Project area.

3.3.2 Special-Status Wildlife Species

Several special-status wildlife species are documented to occur in the vicinity of the Project (Figure 3).

Based on the results of the CNDDDB search and the habitat observed during the reconnaissance survey, suitable habitat exists for unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), a federally- and state-listed endangered species and California Department of Fish & Wildlife (CDFW) fully protected species; Cooper's hawk (*Accipiter cooperii*), a CDFW watch list species; southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) a CDFW watch list species; white-tailed kite (*Elanus leucurus*), a CDFW fully protected species; California horned lark (*Eremophila alpestris actia*); loggerhead shrike (*Lanius ludovicianus*), an CDFW species of special concern; spotted bat (*Euderma maculatum*), a CDFW species of special concern; and western mastiff bat (*Eumops perotis californicus*), a CDFW species of special concern. All of these species have potential to occur within the Project area.

No other species are likely to occur within the Project area.

Unarmored threespine stickleback. Suitable habitat exists for unarmored threespine stickleback within Bouquet Canyon Creek. Bouquet Canyon Creek was dry at the time of the survey; however, two recent CNDDDB records for unarmored threespine stickleback are present adjacent to the Project alignment within Bouquet Canyon Creek. Due to the presence of suitable habitat and nearby CNDDDB records, the unarmored threespine stickleback has a medium potential to occur within the Project area when water is present within Bouquet Canyon Creek.

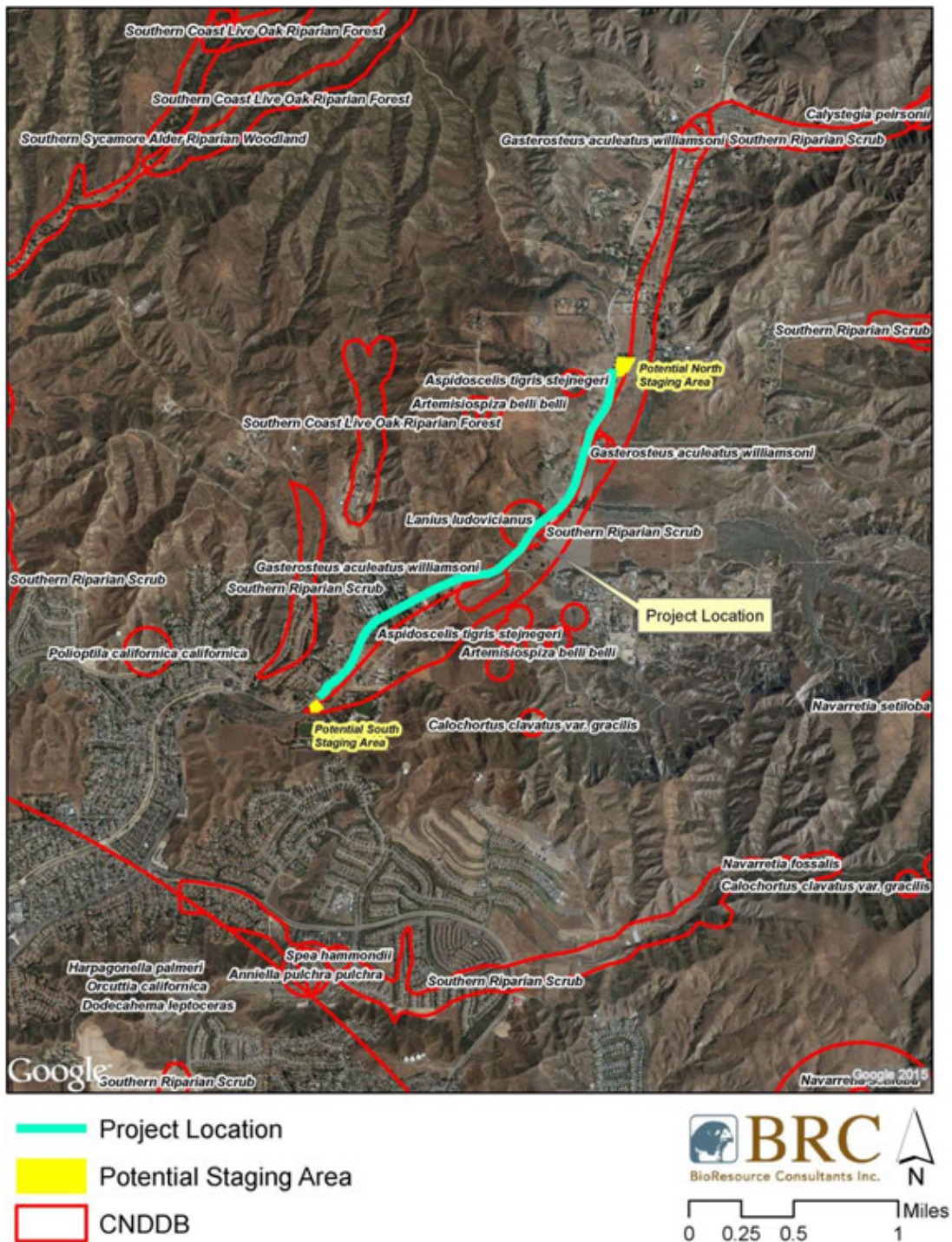


Figure 3. CNDDB occurrences within the vicinity of the Project area.

Cooper's hawk. Suitable nesting habitat for Cooper's hawks was observed within the riparian habitat located along side Bouquet Canyon Creek to the east of the Project alignment. Cooper's hawks are documented approximately two miles west of the Project area. Due to the presence of suitable nesting habitat and nearby eBird records, Cooper's hawks have a medium potential to occur within the Project area. Cooper's hawks have a medium potential to be impacted if project-related activities occur during the nesting season (February through August).

Southern California rufous-crowned sparrow. Marginal nesting and foraging habitat for southern California rufous-crowned sparrow is present within the annual grassland and chaparral habitat present within the Project area that was surveyed. A search of the CNDDDB and eBird databases identified a population approximately 0.4 miles northwest of the Project area (CNDDDB Occurrence 178). Based on the presence of nearby nesting records and marginal habitat, there is a low potential for Southern California rufous-crowned sparrows to occur within the Project area. Southern California rufous-crowned sparrows have a low potential to be impacted if project-related activities occur during the nesting season (February through August).

White-tailed kite. Suitable nesting habitat for white-tailed kites was observed within the riparian habitat near the Project area located along side Bouquet Canyon Creek. White-tailed kites are documented within two miles of the Project area. Due to the presence of suitable nesting habitat and nearby eBird records, the white-tailed kite has medium potential to occur within the Project area. White-tailed kites have a medium potential to be impacted if project-related activities occur during the nesting season (February through August).

California horned lark. Suitable annual grassland habitat for California horned larks is present within the Project area. A search of the eBird data base documents several occurrences of California horned larks near the Lombardi farm and near the intersection of Bouquet Canyon Road and Vasquez Canyon Road. Due to the presence of suitable nesting habitat and nearby eBird records, the California horned lark has a medium potential to occur within the Project area. California horned larks have a medium potential to be impacted if Project-related activities occur during the nesting season (February through August).

Loggerhead shrike. Suitable nesting and foraging habitat is located within the Project area for loggerhead shrikes. A CNDDDB occurrence (CNDDDB Occurrence 93) is located on the north side of Bouquet Canyon Road south of Lombardi Farms, and several eBird occurrences are present along the intersection of Bouquet Canyon Road and Vasquez Canyon Road. Due to the presence of suitable nesting habitat and nearby CNDDDB and eBird records, the loggerhead shrike has a medium potential to occur within the Project area. Loggerhead shrikes have medium potential to be impacted if Project-related activities occur during the nesting season (February through August).

Spotted bat and western mastiff bat. Habitat for the spotted bat and western mastiff bat are present within the Project area. These species are found in a variety of habitats including arid deserts and grasslands and forage near water and along washes. The Project area provides suitable foraging for these species but lacks suitable roosting locations. The spotted bat and western mastiff bat have low potential to occur on site while foraging and no potential to roost within the Project area. Since Project-related activities will be limited to daylight hours, neither species is expected to be impacted.

Nesting birds. Suitable bird nesting habitat is present at the proposed Project area and potential staging areas. Nesting birds are protected under the Migratory Bird Treaty Act (MTBA) and the

California Department of Fish and Game Code and could be impacted by Project activities when construction occurs near nesting areas during the nesting season (February through August).

4.0 MANAGEMENT RECOMMENDATIONS FOR IMPACT AVOIDANCE

To avoid impacts to special-status and/or protected resources occurring in the Project area, BRC recommends implementing the following impact avoidance measures for the Project:

- A qualified Biological Monitor should conduct a pre-construction survey for special-status biological resources prior to construction activities. If any special-status plants are observed, “No Entry” zones will be established. If any special-status wildlife or nesting birds are observed, the Biological Monitor will work directly with the construction crew to develop a plan that best avoids adverse effects.
- If the proposed action is planned to occur within the general bird nesting season, a pre-construction nesting bird survey should be conducted by a qualified biologist. The nesting season is generally considered February 1 through August 31, however, these dates vary by year depending on prey availability, weather, and other factors. If an active nest is discovered, the Biological Monitor will develop species- and site-specific measures to avoid effects to the nest before construction can proceed.
- Reptiles and amphibians, if encountered, will not be handled or touched.
- Rock outcrops and burrows will be inspected during pre-construction surveys, and avoided during construction activities as these may be habitat for special-status species.
- The area of disturbance should be confined to the smallest practical footprint possible. The footprint will consider topography, placement of existing utility poles, location of burrows (if any are found) or vegetation, and other factors that affect wildlife.
- Vehicles should remain on existing access roads to the greatest extent possible. Minor overland travel is permitted if there is a Project-specific need but care shall be taken to minimize crushing of shrubs, saplings and other vegetation.
- Excavated holes should be covered or filled at the end of the workday. If an excavation exists at the end of the day, crews shall cover all holes and trenches with plywood/metal covers and plastic sheeting prior to leaving the area to prevent wildlife from becoming trapped within the excavation. Prior to the start of work each day, covered holes and excavated areas shall be inspected to ensure that no wildlife has fallen in overnight. If wildlife has become trapped and the construction crew is unable to safely remove it, the Biological Monitor shall be contacted for assistance.
- All trash shall be contained in covered containers each day. Containers should be removed from the Project area and properly disposed of and/or recycled at an appropriate disposal facility. Special attention should be given to leaving no micro-trash (screws, nuts, bolts, pop-tops, washers, etc.) on site.
- Refueling of equipment and storage of fuel and other hazardous materials will not occur within 100 meters of perennial and seasonal streams, seeps, springs, or meadows.

5.0 CONCLUSION

The Project is located in a rural area along Bouquet Canyon Road. The Project area is generally heavily disturbed as a result of roadways, residential development, utility maintenance and road maintenance. Areas of natural vegetation are present within the portions of the alignment and provide suitable habitat for special-status plant and wildlife species.

The implementation of this Project is not anticipated to adversely impact any special-status species or their habitats so long as crews follow the recommended mitigation measures. Pre-construction surveys, construction procedures, and, as needed, the presence of a qualified Biological Monitor during key Project-related activities will ensure that habitat disturbance is minimized.

6.0 REFERENCES

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**APPENDIX A:
SPECIAL-STATUS PLANT AND WILDLIFE SPECIES COMPENDIUM**

Table 1. Special-status plants that have potential to occur within the vicinity of the Oasis Wellness Village Project.

Scientific Name	Common Name	Status	Potential to Occur on Site
Plants			
<i>Centromadia parryi</i> ssp. <i>australis</i>	southern tarplant	1B.1	None
<i>Deinandra minthornii</i>	Santa Susana tarplant	SR, 1B.2	None
<i>Berberis nevinii</i>	Nevin's barberry	FE, SE, 1B.1	None
<i>California macrophylla</i>	round-leaved filaree	1B.2	None
<i>Calochortus catalinae</i>	Catalina mariposa-lily	4.2	None
<i>Calochortus clavatus</i> var. <i>clavatus</i>	club-haired mariposa-lily	4.3	None
<i>Calochortus clavatus</i> var. <i>gracilis</i>	slender mariposa-lily	1B.2	Medium
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	4.2	None
<i>Calystegia peirsonii</i>	Peirson's morning-glory	4.2	Medium
<i>Canbya candida</i>	white pygmy-poppy	4.2	None
<i>Cercocarpus betuloides</i> var. <i>blancheae</i>	island mountain-mahogany	4.3	None
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	FC, SE, 1B.1	None
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower	1B.1	None
<i>Deinandra paniculata</i>	paniculate tarplant	4.2	None
<i>Delphinium parryi</i> ssp. <i>purpureum</i>	Mt. Pinos larkspur	4.3	None
<i>Dodecahema leptoceras</i>	slender-horned spineflower	FE, SE, 1B.1	None
<i>Harpagonella palmeri</i>	Palmer's grapplinghook	4.2	None
<i>Helianthus inexpectatus</i>	Newhall sunflower	1B.1	None
<i>Heuchera caespitosa</i>	urn-flowered alumroot	4.3	None
<i>Hordeum intercedens</i>	vernal barley	3.2	None
<i>Hulsea vestita</i> ssp. <i>gabrielensis</i>	San Gabriel Mountains hulsea	4.3	None
<i>Juglans californica</i>	southern California black walnut	4.2	None
<i>Lepechinia fragrans</i>	fragrant pitcher sage	4.2	None
<i>Lepechinia rossii</i>	Ross' pitcher sage	1B.2	None
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	4.3	None
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	ocellated humboldt lily	4.2	None
<i>Malacothamnus davidsonii</i>	Davidson's bush-mallow	1B.2	None
<i>Navarretia fossalis</i>	spreading navarretia	FT, 1B.1	None
<i>Navarretia setiloba</i>	Piute Mountains navarretia	1B.1	None
<i>Opuntia basilaris</i> var. <i>brachyclada</i>	short-joint beavertail	1B.2	None
<i>Orcuttia californica</i>	California Orcutt grass	FE, SE, 1B.1	None
<i>Phacelia mohavensis</i>	Mojave phacelia	4.3	None
<i>Quercus durata</i> var. <i>gabrielensis</i>	San Gabriel oak	4.2	None
<i>Senecio aphanactis</i>	chaparral ragwort	2B.2	None
<i>Symphyotrichum greatae</i>	Greata's aster	1B.3	None

Scientific Name	Common Name	Status	Potential to Occur on Site
Invertebrates			
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT	None
<i>Euphydryas editha quino</i>	quino checkerspot butterfly	FE	None
Fish			
<i>Catostomus santaanae</i>	Santa Ana sucker	FT, SSC	None
<i>Gasterosteus aculeatus williamsoni</i>	unarmored threespine stickleback	FE, SE, CDFW: FP	Medium
<i>Gila orcuttii</i>	arroyo chub	SSC	None
<i>Rhinichthys osculus</i> ssp. 3	Santa Ana speckled dace	SSC	None
Amphibians			
<i>Anaxyrus californicus</i>	arroyo toad	FE, SSC	None
<i>Rana draytonii</i>	California red-legged frog	FT, SSC	None
<i>Rana muscosa</i>	southern mountain yellow-legged frog	FE, SE, SSC	None
<i>Taricha torosa</i>	Coast Range newt	SSC	None
<i>Spea hammondii</i>	western spadefoot	SSC	None
Reptiles			
<i>Anniella pulchra pulchra</i>	silvery legless lizard	SSC	None
<i>Charina umbratica</i>	southern rubber boa	ST	None
<i>Emys marmorata</i>	western pond turtle	SSC	None
<i>Lampropeltis zonata (parvirubra)</i>	California mountain kingsnake (San Bernardino population)	SSC	None
<i>Phrynosoma blainvillii</i>	coast horned lizard	SSC	None
<i>Salvadora hexalepis virgulata</i>	coast patch-nosed snake	SSC	None
<i>Thamnophis hammondii</i>	two-striped garter snake	SSC	None
Birds			
<i>Accipiter cooperii</i>	Cooper's hawk	CDFW:WL	Medium
<i>Accipiter gentilis</i>	northern goshawk	SSC	None
<i>Agelaius tricolor</i>	tricolored blackbird	SE, SSC	None
<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow	CDFW:WL	Low
<i>Aquila chrysaetos</i>	golden eagle	CDFW: FP, WL	None
<i>Artemisospiza belli belli</i>	Bell's sage sparrow	CDFW:WL	None
<i>Athene cucularia</i>	burrowing owl	SSC	None
<i>Buteo regalis</i>	ferruginous hawk	CDFW: WL	None
<i>Buteo swainsoni</i>	Swainson's hawk	ST	None
<i>Chaetura vauxi</i>	Vaux's swift	SSC	None
<i>Charadrius montanus</i>	mountain plover	SSC	None
<i>Circus cyaneus</i>	northern harrier	SSC	None
<i>Contopus cooperi</i>	olive-sided flycatcher	SSC	None

Scientific Name	Common Name	Status	Potential to Occur on Site
<i>Elanus leucurus</i>	white-tailed kite	CDFW:FP	Medium
<i>Empidonax traillii</i>	willow flycatcher	SE	None
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	FE, SE	None
<i>Eremophila alpestris actia</i>	California horned lark	CDFW:WL	Medium
<i>Falco columbarius</i>	merlin	CDFW:WL	None
<i>Falco mexicanus</i>	prairie falcon	CDFW:WL	None
<i>Gymnogyps californianus</i>	California condor	FE, SE, CDFW:FP	None
<i>Icteria virens</i>	yellow-breasted chat	SSC	None
<i>Lanius ludovicianus</i>	loggerhead shrike	SSC	High
<i>Piranga rubra</i>	summer tanager	SSC	None
<i>Poliopitila californica californica</i>	coastal California gnatcatcher	FT, SSC	None
<i>Setophaga petechia</i>	yellow warbler	SSC	None
<i>Strix occidentalis occidentalis</i>	California spotted owl	SSC	None
<i>Toxostoma lecontei</i>	Le Conte's thrasher	SSC	None
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE, SE	None
<i>Vireo vicinior</i>	gray vireo	SSC	None
<i>Xanthocephalus xanthocephalus</i>	yellow-headed blackbird	SSC	None
Mammals			
<i>Antrozous pallidus</i>	pallid bat	SSC	None
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SC, SSC	None
<i>Euderma maculatum</i>	spotted bat	SSC	Low
<i>Eumops perotis californicus</i>	western mastiff bat	SSC	Low
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	SSC	None
<i>Macrotus californicus</i>	California leaf-nosed bat	SSC	None
<i>Myotis velifer</i>	cave myotis	SSC	None
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	SSC	None
<i>Onychomys torridus ramona</i>	southern grasshopper mouse	SSC	None
<i>Taxidea taxus</i>	American badger	SSC	None

Key:

FE = Federally listed as Endangered

FT = Federal listed as Threatened

FC = Federal candidate for listing under the Endangered Species Act

SC = State proposed for listing

SE = State-listed as Endangered

ST = State-listed as Threatened

SWL= California Department of Fish and Game (CDFW) Watch List Species

SSC = California Department of Fish and Game (CDFW) Species of Special Concern

SFP = California Department of Fish and Game (CDFW) Fully Protected Species

SR = State Rare

California Native Plant Society System:

1A = Presumed extinct in California

1B = Rare or Endangered in California and elsewhere

2 = Rare or Endangered in California, more common elsewhere

4 = Plants of limited distribution - Watch list

- .1 = Seriously endangered in California (over 80% of occurrences threatened)
- .2 = Fairly endangered in California (20-80% occurrences threatened)
- .3 = Not very endangered in California (<20% of occurrences threatened or no current threats known)

APPENDIX B
PLANT AND WILDLIFE SPECIES COMPENDIUM

Table 1. Plant species observed during survey.

Scientific Name	Common Name	Family
<i>Ailanthus altissima</i>	tree of heaven	Simaroubaceae
<i>Ambrosia artemisiifolia</i>	annual ragweed,	Asteraceae
<i>Amsinckia</i> sp.	fiddleneck	Boraginaceae
<i>Artemisia californica</i>	coastal sage brush	Asteraceae
<i>Artemisia douglasiana</i>	Douglas' sagewort	Asteraceae
<i>Artemisia tridentata</i>	common sagebrush	Asteraceae
<i>Arundo donax</i>	giant reed	Poaceae
<i>Atriplex canescens</i>	hoary saltbush	Chenopodiaceae
<i>Avena barbata</i>	slim oat	Poaceae
<i>Baccharis salicifolia</i>	mule fat	Asteraceae
<i>Brassica nigra</i>	black mustard	Brassicaceae
<i>Bromus diandrus</i>	ripgut brome	Poaceae
<i>Bromus madritensis</i> ssp. <i>rubens</i>	foxtail brome	Poaceae
<i>Bromus tectorum</i>	downy chess	Poaceae
<i>Centaurea melitensis</i>	totalote	Asteraceae
<i>Cucurbita palmata</i>	coyote gourd	Cucurbitaceae
<i>Cynodon dactylon</i>	Bermuda grass	Poaceae
<i>Datura stramonium</i>	jimson weed	solanaceae
<i>Elymus condensatus</i>	giant wild rye	Poaceae
<i>Ericameria cooperi</i>	Cooper's goldenbush	Asteraceae
<i>Eriodictyon crassifolium</i> var. <i>nigrescens</i>	thick leaved yerba santa	Boraginaceae
<i>Eriogonum fasciculatum</i>	California buckwheat	Polygonaceae
<i>Erodium cicutarium</i>	coastal heron's bill	Geraniaceae
<i>Eucalyptus camaldulensis</i>	red gum	Myrtaceae
<i>Eucalyptus globulus</i>	blue gum	Myrtaceae
<i>Fremontodendron californicum</i>	flannel bush	Malvaceae
<i>Hesperoyucca whipplei</i>	chaparral yucca	Agavaceae
<i>Malva parviflora</i>	cheeseweed	Malvaceae
<i>Melia azedarach</i>	China berry tree	Meliaceae
<i>Nerium oleander</i>	oleander	Apocynaceae
<i>Nicotiana glauca</i>	tree tobacco	Solanaceae
<i>Opuntia basilaris</i>	beavertail	Cactaceae
<i>Opuntia littoralis</i>	prickly pear	Cactaceae
<i>Penstemon centranthifolius</i>	scarlet bugler	Plantaginaceae
<i>Peritoma arborea</i>	bladderpod	Cleomaceae
<i>Pinus halepensis</i>	Aleppo pine	Pinaceae
<i>Platanus racemosa</i>	California sycamore	Platanaceae
<i>Polypogon monspeliensis</i>	annual beard grass	Poaceae
<i>Populus fremontii</i>	Fremont cottonwood	Salicaceae
<i>Portulaca oleracea</i>	purslane	Portulacaceae
<i>Prunus cerasifera</i>	cherry plum	Rosaceae

Scientific Name	Common Name	Family
<i>Quercus agrifolia</i>	coast live oak	Fagaceae
<i>Quercus berberidifolia</i>	scrub oak	Fagaceae
<i>Salix exigua</i> var. <i>hindsiana</i>	sandbar willow	Salicaceae
<i>Salix lasiolepis</i>	arroyo willow	Salicaceae
<i>Salsola tragus</i>	Russian thistle	Chenopodiaceae
<i>Salvia leucophylla</i>	purple sage	Lamiaceae
<i>Salvia mellifera</i>	black sage	Lamiaceae
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry	Adoxaceae
<i>Schinus molle</i>	Peruvian pepper tree	Anacardiaceae
<i>Solanum xanti</i>	nightshade	Solanaceae
<i>Sonchus oleraceus</i>	sow thistle	Asteraceae
<i>Stephanomeria pauciflora</i>	wire lettuce	Asteraceae
<i>Tamarix ramosissima</i>	tamarisk	Tamaricaceae
<i>Tribulus terrestris</i>	puncture vine	Zygophyllaceae

Table 2. Wildlife species observed during survey.

Scientific Name	Common Name
Reptiles	
<i>Sceloporus occidentalis longipes</i>	Great Basin fence lizard
<i>Uta stansburiana elegans</i>	western side-blotched lizard
Birds	
<i>Aphelocoma californica</i>	western scrub-jay
<i>Baeolophus inornatus</i>	oak titmouse
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Calypte anna</i>	Anna's hummingbird
<i>Carpodacus mexicanus</i>	house finch
<i>Chondestes grammacus</i>	lark sparrow
<i>Colaptes auratus cafer</i>	red-shafted flicker
<i>Columba livia</i>	rock pigeon
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	common raven
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Junco hyemalis</i>	dark-eyed junco
<i>Melospiza crissalis</i>	California towhee
<i>Mimus polyglottos</i>	northern mockingbird
<i>Passer domesticus</i>	house sparrow
<i>Passerculus sandwichensis</i>	savannah sparrow
<i>Phainopepla nitens</i>	phainopepla
<i>Picoides pubescens</i>	downy woodpecker
<i>Psaltirparus minimus</i>	bushtit
<i>Salpinctes obsoletus</i>	rock wren
<i>Sayornis nigricans</i>	black phoebe
<i>Sayornis saya</i>	Say's phoebe
<i>Setophaga coronata auduboni</i>	Audubon's warbler
<i>Spinus psaltria</i>	lesser goldfinch
<i>Streptopelia decaocto</i>	Eurasian-collared dove
<i>Zenaidura macroura</i>	mourning dove
<i>Zonotrichia leucophrys</i>	white-crowned sparrow
Mammals	
<i>Otospermophilus beecheyi</i>	California ground squirrel
<i>Sylvilagus audubonii</i>	desert cottontail
<i>Thomomys bottae</i>	Botta's pocket gopher

APPENDIX C
SITE PHOTOGRAPHS



Photo 1. Western staging area, facing west.



Photo 2. Project alignment, facing west.



Photo 3. Residential area located along Bouquet Canyon Road, facing west.



Photo 4. Annual grassland habitat located along Bouquet Canyon Road, facing east.



Photo 5. Disturbed area located near Lambardi Farms along Bouquet Canyon Road, facing east.



Photo 6. Bouquet Canyon Creek along Bouquet Canyon Road, facing west.



Photo 7. Disturbed area located along Bouquet Canyon Road, facing east.



Photo 8. Northern potential staging area, facing east.

APPENDIX C

Cultural Resources Report

Phase I Cultural Resources Assessment
LARC Ranch Water Pipeline
Near Santa Clarita, Los Angeles County, California

Prepared for:

Santa Clarita Water
26521 Summit circle
Santa Clarita, CA 91380-9003

Prepared by:

Meridian Consultants LLC
910 Hampshire Road, Suite V
Westlake Village, CA 91361

November 2016

TABLE OF CONTENTS

Section	Page
1.0 Management Summary	1.0-1
2.0 Introduction	2.0-1
3.0 Setting	3.0-1
3.1 Natural Setting	3.0-1
3.2 Cultural Setting	3.0-1
4.0 Research Methods	4.0-1
4.1 Cultural Resources Records Search and Literature Review	4.0-1
4.2 Native American Consultation	4.0-1
4.3 Field Survey	4.0-1
5.0 Results and Findings.....	5.0-1
5.1 Cultural Resources Records Search and Literature Review	5.0-1
5.2 Native American Consultation	5.0-2
5.3 Field Survey	5.0-2
6.0 Conclusion and Recommendations	6.0-1
7.0 References	7.0-1

Appendices

- A Previous Cultural Resources Investigations within 1 Mile of the Project Area
- B Correspondence
- C Personnel Qualifications

LIST OF FIGURES

Figure	Page
2.0-1 Regional Context Map	2.0-3
2.0-2 Project Location Map	2.0-4
2.0-3 View 1: Southern Staging Area	2.0-5
2.0-4 View 2: LARC Ranch Staging Area	2.0-6
2.0-5 View 3: Project Setting Along Bouquet Canyon Road.....	2.0-7

LIST OF TABLES

Table	Page
5.1-1 Previously Recorded Cultural Resources within 1 Mile of the Project Area.....	5.0-2

1.0 MANAGEMENT SUMMARY

Santa Clarita Water Division of Castaic Lake Water Agency (SCWD) proposes to construct a new water pipeline beneath Bouquet Canyon Road near Shadow Valley Lane that would extend the SCWD potable water system to serve the LARC Ranch, north of Santa Clarita, Los Angeles County, California.

Meridian Consultants LLC was retained to conduct a cultural resources investigation of the LARC Ranch Water Pipeline Project in accordance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR Part 800). The purpose of the investigation is to provide SCWD with information and recommendations to determine whether the project would cause substantial adverse changes to any historical or archaeological resources, as mandated by CEQA. Additionally, because this project may also involve a federal undertaking, this investigation is also intended to assist a federal agency in its efforts to evaluate the effects of the undertaking on historic properties, as required by Section 106 of the NHPA.

Meridian Consultants performed an archaeological literature and records search at the South Central Coastal Information Center, which indicated that 13 previously identified cultural resources are located within a 1-mile radius of the project area. However, no archaeological sites were identified within the project area itself. One previously recorded cultural resource was identified adjacent to the project area. Constructed in 1942, Bouquet Creek Bridge (Bridge #53C0996) is an example of a simple A-frame truss bridge. In the time since it was initially recorded, this bridge was renovated and was determined not eligible for listing in the National Register of Historic Places or for designation as a historical resource under CEQA in a 2004 California Department of Transportation (Caltrans) Historic Bridges Inventory Update.

An intensive archaeological pedestrian survey of the project area was performed on October 21, 2015. The pedestrian survey of the project area did not result in the identification of any prehistoric or historic resources. No further cultural resource identification efforts for the project area are recommended, unless the project scope is modified to include areas not evaluated by this study. However, if buried cultural materials are encountered during construction, all work in that area should stop until a qualified archaeologist can evaluate the nature and significance of the discovery.

National Archaeological Database Information:

Authors: Jeff Carr, Mitch Evans; Keywords: Santa Clarita, Los Angeles County, Phase I cultural resources survey, USGS Mint Canyon, California 7.5' Quadrangle; Project Size: approximately 20 acres

2.0 INTRODUCTION

In October 2015, at the request of SCWD, Meridian Consultants performed a cultural resources investigation on approximately 20 acres of public right-of-way and private land north of Santa Clarita in unincorporated Los Angeles County, California. This investigation is part of the environmental review process required under CEQA and NHPA for the proposed LARC Ranch Water Pipeline project. The purpose of this study was to assess whether any cultural resources would be affected by the implementation of the project, in accordance with CEQA and Section 106 of NHPA. The investigation consisted of (1) a search of archival records and background research; and (2) a Phase I intensive-level archaeological survey of the project area by Meridian Consultants (see Appendix C, Personnel Qualifications). This report provides a discussion of the natural and cultural environment of the area; summarizes the methods and results of the investigation; and provides management recommendations related to the project.

A “historical resource” under CEQA, as defined by California Public Resources Code (PRC) Part 5020.1(j) is any object, building, site, area, place, record, or manuscript that is historically or archaeologically significant, or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Guidelines for CEQA further define a “historical resource” as any resource listed in or determined eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the Lead Agency. To be eligible for listing in the California Register, a property must meet at least one of the following criteria:

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1)
- Associated with the lives of persons important to local, California or national history (Criterion 2)
- Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values (Criterion 3)
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4)

Additionally, a resource would be automatically listed in the California Register if it is listed in the National Register of Historic Places or formally determined eligible by an agency for listing in the National Register, the criteria for which are discussed below.

Under Section 106 of the NHPA, a “historic property” is defined as a resource that is listed in or determined eligible for (by the lead federal agency) listing in the National Register. The National Register recognizes properties that are historically significant at the local, state, and national level and uses criteria for evaluation that are similar to those of the California Register:

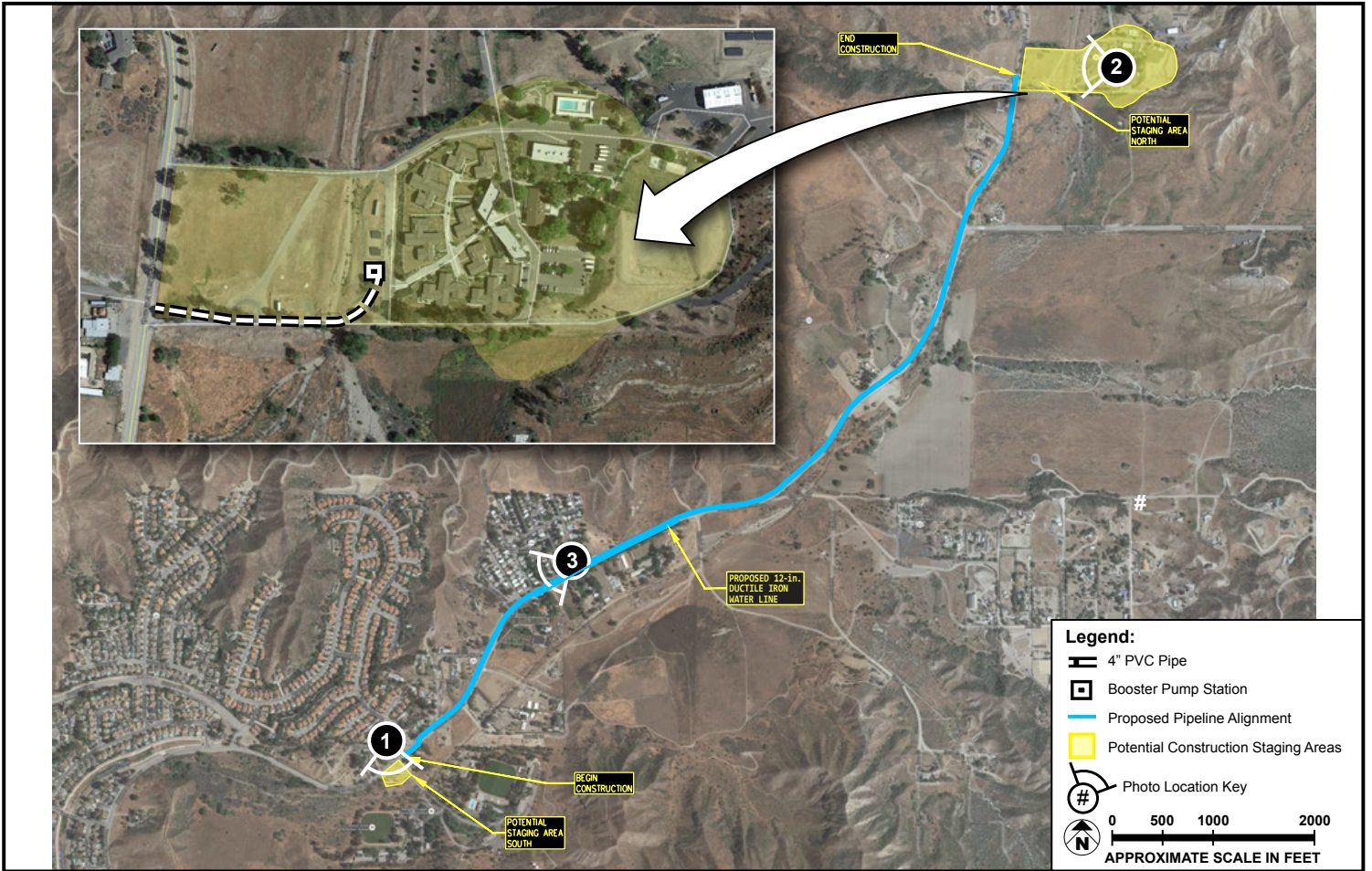
- Associated with events that have made a significant contribution to the broad patterns of our history (Criterion A)
- Associated with the lives of persons significant in our past (Criterion B)
- Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values (Criterion C)
- Has yielded, or may be likely to yield, information important in history or prehistory (Criterion D)

2.1 PROJECT LOCATION AND DESCRIPTION

The project proposes to construct a 9,500-foot-long, 12-inch water pipeline that will connect to an existing 12-inch pipeline beneath Bouquet Canyon Road near Shadow Valley Lane, north of Santa Clarita, Los Angeles County, California. The pipeline would start beneath Bouquet Canyon Road along the southern side of the roadway, then travel northeast along the northern side of the roadway and continue until reaching LARC Ranch. The project as proposed would include an on-site booster pump station and pipeline located on LARC grounds to connect and fill the existing 0.36 MG storage tank from the new service meter. The on-site pump station would be an approximately 10-foot high, less-than-200-square-foot block wall building, located adjacent to similar type of walled enclosure. A new 4-inch pipeline would extend approximately 700 feet from a SCWD service meter to the pump station, as shown on **Figure 2.0-2**. Several construction staging areas have been proposed, including one adjacent to the southeast of Bouquet Canyon Road near Shadow Valley Lane and several areas within the LARC Ranch property.

The location of the project area is shown in **Figure 2.0-1, Regional Context Map**, and **Figure 2.0-2, Project Location Map**. The project area currently consists of an open, undeveloped area to the south of the proposed pipeline, the roadway/right-of-way through which the pipeline will traverse, and areas on the LARC Ranch property. The southern staging area is characterized by a few trees along the right-of-way and some scrub vegetation, as shown in **Figure 2.0-3, View 1: Southern Staging Area**. The northern staging area is similar in that it contains evergreen trees along the right-of-way and an area largely free of vegetation (see **Figure 2.0-4, View 2: LARC Ranch Staging Area**), with modern LARC Ranch buildings located immediately to the east. The setting immediately surrounding the project area contains scattered residential development, including a mobile home community near the southern portion of the project area, as shown in **Figure 2.0-5, View 3: Project Setting along Bouquet Canyon Road**.

For the purposes of Section 106 review, the area of potential effect (APE) is considered to correspond to the southern staging area, the northern staging area on the LARC Ranch property, and the alignment of the proposed pipeline within the existing roadway/right-of-way of Bouquet Canyon Road.



SOURCE: Santa Clarita Water Division - 2015

FIGURE 2.0-2



Project Location Map

108-001-15



SOURCE: Google Earth - 2015

FIGURE 2.0-3



View 1: Southern Staging Area

108-001-15



SOURCE: Google Earth - 2015

FIGURE 2.0-4



View 2: LARC Ranch Staging Area

108-001-15



SOURCE: Google Earth - 2015

FIGURE 2.0-5



View 3: Project Setting Along Bouquet Canyon Road

108-001-15

3.1 NATURAL SETTING

The project area is located along Bouquet Canyon Road in unincorporated Los Angeles County, northwest of the City of Santa Clarita, Los Angeles County. At an elevation between approximately 1,415 and 1,540 feet above mean sea level (amsl), the project area is located in a contributing tributary area for the Santa Clara River, along Bouquet Creek. The region is characterized by an arid climate, with intermittent periods of less-than-average precipitation typically followed by periods of greater-than-average precipitation in a cyclical pattern; the long-term average annual precipitation (1931—2010) is 17.8 inches (Upper Santa Clara River 2014). The project area is located mostly in the Bouquet Canyon Creek flood plain.

The proposed pipeline would run along the existing Bouquet Canyon Road right-of-way on the western extent of the flood plain. The southern staging area is located in an open lot, with existing pine trees and native plants, abutting Bouquet Canyon Creek. The northern potential staging areas are located on either side of Bouquet Canyon Creek within existing residential ranch community with residential roads, with the Bouquet Canyon Creek flood plain to the west and sloping foothills to the east. The LARC Ranch property can be separated into distinct areas: (1) the East Area, an undeveloped west-facing hillside; and (2) the Central Area, a graded, developed area in the floodplain east of the creek channel.

The project area is located in the eastern part of the Transverse Ranges Province of California, which consists of a number of west-trending ranges (Cook 1997). The area is part of the Bouquet Creek drainage, issuing from the Sierra Pelona and draining southward to join the Santa Clara River southwest of the project area. The vegetative communities of the region include the riparian area along the creek, as well as oak, woodland, sagebrush, and chaparral plant communities. The fauna of the region includes deer, rabbit, ground squirrel, lizards, snakes, birds, and insects. Domesticated animals have utilized the land in the recent past.

3.2 CULTURAL SETTING

The earliest archaeological evidence of human occupation of the Upper Santa Clara River area dates from 7,000 to 4,000 years ago and was collected from two archaeological sites near Vasquez Rocks. However, the identity of these first inhabitants is not known. The project area is within the territory historically occupied by the Tataviam peoples (Johnson and Earle 1990; Kroeber 1976; Van Valkenburgh 1935) The Tataviam were Uto-Aztec speakers of Shoshonean descent who came to the region around 450 A.D. Spanish explorer Pedro Fages described them as a distinct linguistic group when the Spanish first encountered them (King and Blackburn 1978). The Tataviam mainly lived on the upper reaches of the Santa Clara River, east of Piru Creek. However, they also reached north into the Antelope Valley, south to

the San Gabriel Mountains, and perhaps as far east as the Soledad Pass (Impact Sciences 1999; King and Blackburn 1978). Archaeological evidence recovered from archaeological sites in the Santa Clarita Valley, between Newhall and Piru, indicate that subsistence patterns and ritual practices of the Tataviam were very similar to neighboring Chumash and Gabrielino cultures (Impact Sciences 1999). Tataviam sites have been recorded throughout the Santa Clara Valley, especially along the Santa Clara River (CH2MHill 1996) and the Vasquez Rocks area (Impact Sciences, Inc. 1999). Village sites with known names are located at San Francisquito, Piru, Camulos, Castaic Reservoir, Piru Creek, and Elizabeth Lake, and around the Newhall area (CH2MHill 1996). Tataviam peoples, like their neighbors, followed an annual cycle that included harvesting a variety of native plants, hunting, and trapping. Villages contained several related families who lived in separate houses. Based on ethnographic and archaeological evidence, their settlements varied in size from small communities of only 10 to 15 people to larger village of approximately 200 residents.

Many available historical records exist for the local area and the greater Santa Clarita Valley. The earliest include descriptions in diaries written by members of the first Spanish land expedition in 1769. Gaspar de Portola led this expedition from the San Fernando Valley near Newhall down the Santa Clara River Valley to the Oxnard Plain (Singer and Morrill 1999). The route taken by Portola would become known as El Camino Viejo (The Old Road). Soon after this first European contact and colonization, aboriginal society began to collapse. Mission San Fernando was established on September 8, 1797, followed by the construction of Asistencia de San Francisco at Castaic Junction in 1804. As a result of the introduction of epidemic diseases with high mortality rates and the effects of Spanish colonial occupation, native societies began to disintegrate. By 1810, almost all Tataviam peoples had been baptized at San Fernando Mission or had left the area. By 1834, the year the missions were closed, the descendants of most missionized Tataviam had married members of other groups and worked on local ranchos as vaqueros, domestics, and farm laborers. By 1916, the Tataviam language was no longer spoken (King and Blackburn 1978).

Not long after the missions were secularized in 1834, Bouquet Canyon became part of the 48,612-acre Rancho de San Francisco land grant, which included the western half of the Santa Clarita Valley and was used for cattle and sheep grazing. With California coming under the control of the United States and the breakup of the ranchos, many sizable agricultural operations and cattle ranches were established, including the Tejon Ranch and the Newhall Land and Farm Company. Eventually, the original ranchos were divided and sold, giving rise to several small towns throughout the region. The mid-19th century witnessed the establishment of the oil industry in the Santa Clarita Valley, which was the first location of true oil drilling in Southern California. An oil boom followed with the coming of the Southern Pacific Railroad, along with the development of the Newhall oil field and the Pioneer Oil Refinery in 1874 (White 1962).

As Los Angeles began to expand in the early 20th century, land speculators and developers realized new opportunities in surrounding areas. With the construction of the California Aqueduct system, high-voltage electrical transmission lines and towers, and improved roadways connecting the Santa Clarita Valley and Los Angeles, the area has steadily grown as part of the Southern California region.

4.0 RESEARCH METHODS

4.1 CULTURAL RESOURCES RECORDS SEARCH AND LITERATURE REVIEW

On October 14, 2015, Meridian Consultants conducted a records search at the South Central Coastal Information Center at California State University, Fullerton to identify historical and archaeological resources within the project area/APE and within 1 mile of the project. This search included a review of the California Historical Resources Inventory System, National Register of Historic Places, California Register of Historical Resources, California Inventory of Historic Resources, and California Historical Landmarks. The search also identified reports of previous cultural resources investigations within 1 mile of the project area. Historic maps were also consulted, including USGS topographic maps and General Land Office maps, to help identify historic settlement or land-development activity within the project area/APE.

4.2 NATIVE AMERICAN CONSULTATION

On October 19, 2015, Meridian Consultants submitted a written request to the Native American Heritage Commission (NAHC) for a records search of their Sacred Lands File. Meridian Consultants received a response from the NAHC on November 9, 2015, indicating that their search of the Sacred Lands File did not result in the identification of Native American cultural resources in the immediate project area. The NAHC provided a list of five Native American organizations that may have knowledge of cultural resources in the project area. Meridian Consultants sent letters to these organizations notifying them of the proposed project and requesting any information they may have on cultural resources in the immediate vicinity of the project area. Meridian Consultants has received no responses as of the date of this report.

4.3 FIELD SURVEY

On October 21, 2015, Meridian Consultants carried out a systematic pedestrian field survey of the project area/APE. For the proposed staging areas, Mr. Evans walked parallel transects spaced 15 meters apart from the extents of each staging area and surveyed the perimeter of each the staging area. Mr. Evans performed a vehicular/windshield survey of the pipeline alignment that corresponds with Bouquet Canyon Road. The entire project area was examined for any evidence of prehistoric or historic (i.e. greater than 50 years) human activities. Mr. Evans used a GPS unit to record spatial locations of natural features and modern debris concentrations and a digital camera to document the project area.

5.0 RESULTS AND FINDINGS

5.1 CULTURAL RESOURCES RECORDS SEARCH AND LITERATURE REVIEW

According to records on file at the South Central Coastal Information Center, the project area was surveyed for cultural resources in 1990, and no archaeological sites or other potentially significant historic resources were identified within the project area. The records search identified 13 previously recorded cultural resources within 1 mile of the project area, summarized in **Table 5.1-1, Previously Recorded Cultural Resources within 1 Mile of the Project Area**. More than 30 previous cultural resource studies have been undertaken within a 1-mile radius of the Project Site, as summarized in Appendix A.

One previously recorded historic resource was identified adjacent to the project area. Constructed in 1942, Bouquet Creek Bridge (Bridge #53C0996) is an example of a simple A-frame truss bridge. The bridge carries Vasquez Canyon Road over Bouquet Creek approximately 150 feet east of its intersection with Bouquet Canyon Road. In the time since it was initially recorded, the bridge was renovated and was determined not eligible for listing in the National Register of Historic Places or for designation as a historical resource under CEQA in a 2004 CalTrans Historic Bridges Inventory Update (McMorris 2004). Maps and aerial photographs examined for this study indicate that the eastern portion of the LARC Ranch staging area was developed after 1960, with the majority of buildings constructed in 2001.

5.2 NATIVE AMERICAN CONSULTATION

The NAHC responded to Meridian Consultants' request to search the Sacred Lands File for any Native American cultural resources within the immediate vicinity of the project area on November 9, 2015. The search identified no known cultural resources in the vicinity of the project area. The NAHC also provided a list of five Native American organizations that may have knowledge of cultural resources in the area. As noted earlier, Meridian Consultants sent letters to the five groups notifying them of the proposed project and requesting any information they may have on cultural resources in the immediate vicinity of the project area. Meridian Consultants has received no response as of the date of this report.

Table 5.1-1
Previously Recorded Cultural Resources within 1 Mile of the Project Area

Site #	Recorder (Year)	Approx. Distance from Project Area	Type
CA-LAN-295	Riddell (1963)	0.9 mile	Small rock shelter
CA-LAN-2040H	Rasson/LeCount (1992)	0.9 mile	Historic 20th-century refuse scatter
CA-LAN-2041H	Rasson/LeCount (1992)	0.75 mile	Historic 20th-century refuse scatter
CA-LAN-3016H	Vance (2001)	0.9 mile	Historic coarse gold mines
CA-LAN-3534H	Ahmet/Sharp (2006)	0.7 mile	Historic ranch and structures
CA-LAN-3535H	Ahmet/Sharp (2006)	1.0 mile	Rock feature and survey marker
CA-LAN-3631	Paniagua (2003)	0.75 mile	Rock feature cache
CA-LAN-3632	Paniagua (2003)	0.75 mile	Rock feature cache
CA-LAN-3633	Paniagua (2003)	0.8 mile	Rock feature cache
CA-LAN-3634	Paniagua (2003)	0.7 mile	Rock feature cache
CA-LAN-100572	Ahmet (2006)	0.5 mile	Historic trash scatter/dump
CA-LAN-186915	Vance (2001)	0.3 mile	Historic road
CA-LAN-187557	Blosser, Johnson (2003)	150 feet	Historic bridge

5.3 FIELD SURVEY

The intensive-level pedestrian survey of the project area resulted in the identification of no cultural resources. The entire project area was closely examined for any evidence of human activities from the prehistoric and historic periods. These efforts resulted in negative findings, other than some evidence of modern refuse dumping. The modern refuse dumps were sporadic concentrations located along Bouquet Canyon Road and the southern staging area. There is evidence of some recent disturbance of the ground surface in the southern staging area, as well as of the recent removal of several tall trees on the lot. An artificial berm runs along the eastern border of the southern potential staging area lot along the west bank of the creek. An asphalt path was identified at the southwestern area of the southern staging area. Natural disturbances include extensive rodent burrows across the entirety of the project area. The ground visibility was approximately 30–40 percent due to grasses, leaf litter, and shrubs. However, no features or objects greater than 50 years of age were identified within the project boundaries during the investigation.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this investigation was to identify any historic resources within the project area to assist the SCWD in determining whether the proposed project would result in a substantial adverse change in the significance of a historical resource, pursuant to CEQA. Should the project involve a federal undertaking, this investigation is also intended to assist federal agencies in taking into account the effects of their undertakings on historic properties, as required by Section 106 of the NHPA.

As previously discussed, neither the background records search, a previous field survey that included the project area, nor the current field survey resulted in the identification of any cultural materials within the boundaries of the project area that would meet the definition of “historical resource” (pursuant to CEQA) or “historic property” (pursuant to Section 106 of the NHPA). While one historic resource, Bouquet Creek Bridge, was previously recorded adjacent to the project area, a recent evaluation of the bridge determined it ineligible for listing in the National Register of Historic Places or for designation as a historical resource under CEQA. As such, no further cultural resources investigation is recommended for the proposed project unless the design of the project is modified to include areas not examined by this study.

While this investigation identified no cultural resources within the project area, the possibility exists that ground-disturbing activities may uncover human remains or other significant cultural deposits or artifacts that were previously unrecorded.

If project implementation results in the unanticipated discovery of human remains, Section 7050.5 of the California Health Code and PRC Section 5097.98 must be followed: excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains must stop, and the Los Angeles County Coroner’s office must be contacted. If the coroner determines the remains are Native American, within 24 hours the coroner will contact the NAHC, which will identify the person or persons it believes to be the “most likely descendant” of the deceased Native American. The most likely descendant may recommend to the landowner or excavation contractor means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods.

If non-mortuary-related archaeological material is discovered in the course of project implementation, all work in the immediate vicinity of the discovery must halt, and a qualified archaeologist must be consulted to determine whether the resource requires further study, pursuant to PRC Section 21082 and Section 15064.5 of the CEQA Guidelines. Archaeological material may include stone, bone, wood, shell artifacts, or other features, including hearths, structural remains, or historic dumpsites. The archaeologist will recommend to the Lead Agency appropriate measures to protect the resources, which may include systematic excavation and evaluation of the discovery. No further excavation, grading, or construction

6.0 Conclusions and Recommendations

activity may occur in the area of the discovery until the Lead Agency has approved the measures to protect the resources. Any archaeological materials recovered from the site must be curated at qualified scientific institution, as determined by the Lead Agency.

If the project is subject to federal review in accordance with Section 106 of the NHPA, in the event that previously unknown historic properties are discovered or unanticipated effects on historic properties are found, the federal agency should be notified. The federal agency must make reasonable efforts to avoid, minimize, or mitigate adverse effects to such historic properties and consult to resolve adverse effects, in accordance with 36 CFR Part 800.1.

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1962 *Formative Years in the Far West: A History of Standard Oil Company of California and Predecessors through 1919*. Appleton-Century-Crofts, New York.

APPENDIX A

Previous Cultural Resource Investigations within 1 Mile of the Project Area

Previous Cultural Resources Investigations within 1 Mile of the Project Site

SCCIC #	Author	Date	Title
LA-00904	Wlodarski, Robert J.	1979	An Evaluation of the Impact Upon Cultural Resources by the Proposed Development of Tentative Tracts; 30546, 30562, 30599 Located in Bouquet Canyon, Los Angeles County, California
LA-00932	Tartaglia, Louis J.	1980	Cultural Resource Survey Tentative Parcel Map Number 00000, Saugus, Los Angeles County, California
LA-01003	Dillon, Brian D.	1981	An Archaeological Resource Survey and Impact Assessment of Preliminary Land Division 6867; a 26.23 Acre Parcel in Bouquet Canyon, Los Angeles County, California
LA-01114	Toren, George A.	1976	Assessment of the Archaeological Impact by the Proposed Development of Tract No. 32615 in Valencia, California
LA-01141	Wlodarski, Robert J.	1982	An Evaluation of the Potential Impacts to Cultural Resources Located on Portions of Tentative Parcel Map 14813 Bouquet Canyon, Los Angeles, California
LA-01701	Dillon, Brian D.	1988	An Archaeological Resource Survey and Impact Assessment of Tentative Tract No. 46648, a 93.2 Acre Parcel on Vasquez Canyon Road in Bouquet Canyon, Northern Los Angeles County, California
LA-01846	Salls, Roy A.	1990	Report of Archaeological Reconnaissance Survey of: the Tonny Elmensdorp Property, Parcel Map 19714 3034 Bouquet Canyon Road Saugus, California 91300
LA-02590	Rasson, Judith and Roberta S. Greenwood	1992	An Archaeological Reconnaissance of Tract 31803, a 220 Acre Parcel in Plum Canyon, Los Angeles County
LA-03690	Wlodarski, Robert J.	1997	Cultural Resources Evaluation City of Santa Clarita Circulation Element EIR
LA-04057	Allen, Kathleen C. and Wakefield, Steven A.	1998	Cultural Resources Re-assessment of the Bouquet Canyon Project, County of Los Angeles (VTT 52192, 52193, and 52194)
LA-04481	Singer, Clay A. and David A. Morrill	1999	Cultural Resources Survey and Impact Assessment for LARC Foundation Ranch in Bouquet Canyon, Los Angeles County, California
LA-04843	Allen, Kathleen C.	1999	Addendum to Cultural Resources Re-assessment of the Bouquet Canyon Project, County of Los Angeles (VTT 52192, 52193, and 52194)
LA-05137	Unknown	1999	Archaeological and Paleontological Resources Assessment of the Camp Joseph Scott Project
LA-07428	McMorris, Christopher	2004	Caltrans Historic Bridges Inventory Update: Timber Truss, Concrete Truss, and Suspension Bridges
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LA-09042	Simon, Joseph M., Tamara K. Whitley, and David S. Whitley	2004	Phase I Archaeological Survey of the Skyline Ranch Study Area, Los Angeles County, California
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APPENDIX B
Correspondence

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX



November 6, 2015

Mitch Evans
Santa Clarita Water Division
910 Hampshire Road, Suite V
Westlake Village, CA 91361

Email to: mevans@meridianconsultantsllc.com

RE: Native American Consultation, Pursuant to Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2, LARC Ranch Water Pipeline, Los Angeles County

Dear Mr. Evans,

As of July 1, 2015, Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law. Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the potential "area of project affect" (APE).

In accordance with Public Resources Code Section 21080.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
 - If the probability is low, moderate, or high that cultural resources are located in the APE.

- Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
 - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
- Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. The request form can be found at http://www.nahc.ca.gov/slf_request.html. USGS 7.5-minute quadrangle name, township, range, and section required for the search.

SFL Check Completed with Negative Results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

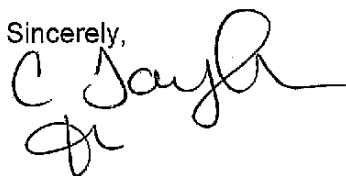
Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: katy.sanchez@nahc.ca.gov.

Sincerely,



Katy Sanchez
Associate Environmental Planner

**Native American Heritage Commission
Tribal Consultation List
Los Angeles County
November 6, 2015**

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina , CA 91723
gabrielenoindians@yahoo.com Gabrielino
(626) 926-4131

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100
Los Angeles , CA 90067
Gabrielino
(626) 676-1184 Cell

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed LARC Ranch Water Pipeline, Los Angeles County.



910 Hampshire Road, Suite V
Westlake Village, California 91631
Tel. 805.367.5720 Fax. 805.367.5733

November 11, 2015

The Honorable Andrew Salas
Chairperson, Gabrieleno Band of Mission Indians – Kizh Nation
P.O. Box 393
Covina, CA 91723

Re: LARC Ranch Water Pipeline Cultural Resources Investigation, Near Santa Clarita, Los Angeles County, CA

Dear Mr. Salas,

Meridian Consultants has been hired to perform a cultural resources investigation for the proposed LARC Ranch Water Pipeline Project located north of Santa Clarita, Los Angeles County, California. The purpose of the investigation is to provide the Santa Clarita Water Division of Castaic Lake Water Agency with information and recommendations to determine whether the project would cause substantial adverse changes to any cultural resources, as mandated by California Environmental Quality Act (CEQA). Additionally, as this project may involve a federal undertaking, the investigation is also intended to assist a federal agency in its efforts to evaluate the effects of the undertaking on historic properties, as required by Section 106 of the National Historic Preservation Act.

The project proposes to construct a 9,500-foot-long, 16-inch water pipeline that will connect to an existing 16-inch pipeline beneath Bouquet Canyon Road near Shadow Valley Lane, north of Santa Clarita, Los Angeles County, California. The pipeline will start beneath Bouquet Canyon Road along the southern side of the roadway, then would travel northeast along the northern side of the roadway and continue until reaching LARC Ranch, as shown in the attached Project Location Map. The proposed pipeline would terminate along Bouquet Canyon Road adjacent to LARC Ranch. A turnout and meter would be provided in order for LARC Ranch to connect to SCWD's 16-inch pipeline. Construction staging areas have been proposed including one adjacent to the southeast of Bouquet Canyon Road near Shadow Valley Lane and areas within the LARC Ranch property. The project will travel through S33 T5N R15W, S32 T5N R15W, S5 T4N R15W, and S6 T4N R15W of the USGS Mint Canyon, CA 7.5' Quadrangle.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) identified no Native American cultural resources in the immediate project area. The NAHC also provided Meridian Consultants a list of Native American organizations that may have knowledge of cultural resources in the project area, which included your name and contact information. The NAHC's response is attached for your reference.

Meridian Consultants performed an archaeological/historic records search at the South Central Coastal Information Center at California State University, Fullerton on October 14, 2015 to identify previous cultural resource studies and previously recorded cultural resources within the project vicinity. That search identified 13 previously recorded cultural resources within 1 mile of the project area, but no resources within the project area itself. The previously identified cultural resources are summarized in an attached table.

The records search also identified more than 30 previous cultural resource studies that have been undertaken within a 1-mile radius of the project area (summarized in an attached table) including a previous archaeological field survey of the project area performed in 1990, which identified no prehistoric or historic cultural resources within the project area. The project area was again surveyed by Meridian Consultants on October 19, 2015, which also resulted in the identification of no exposed historic or prehistoric cultural resources.

We respectfully request your participation in this planning process. If you or members of your community have any additional knowledge of cultural resources or Native American Sacred Lands within or near the study area, or if you have any other comment on the project, please contact me at 805-322-4689 or jcarr@meridianconsultantsllc.com.

Sincerely,



Jeff Carr

Senior Planner/Cultural Resource Specialist

Attachments:

Regional Context Map

Project Location Map

NAHC Response Letter

Table of Previously Identified Cultural Resources within 1 Mile of the Project Area

Table of Previous Cultural Resource Investigations within 1 Mile of the Project Area

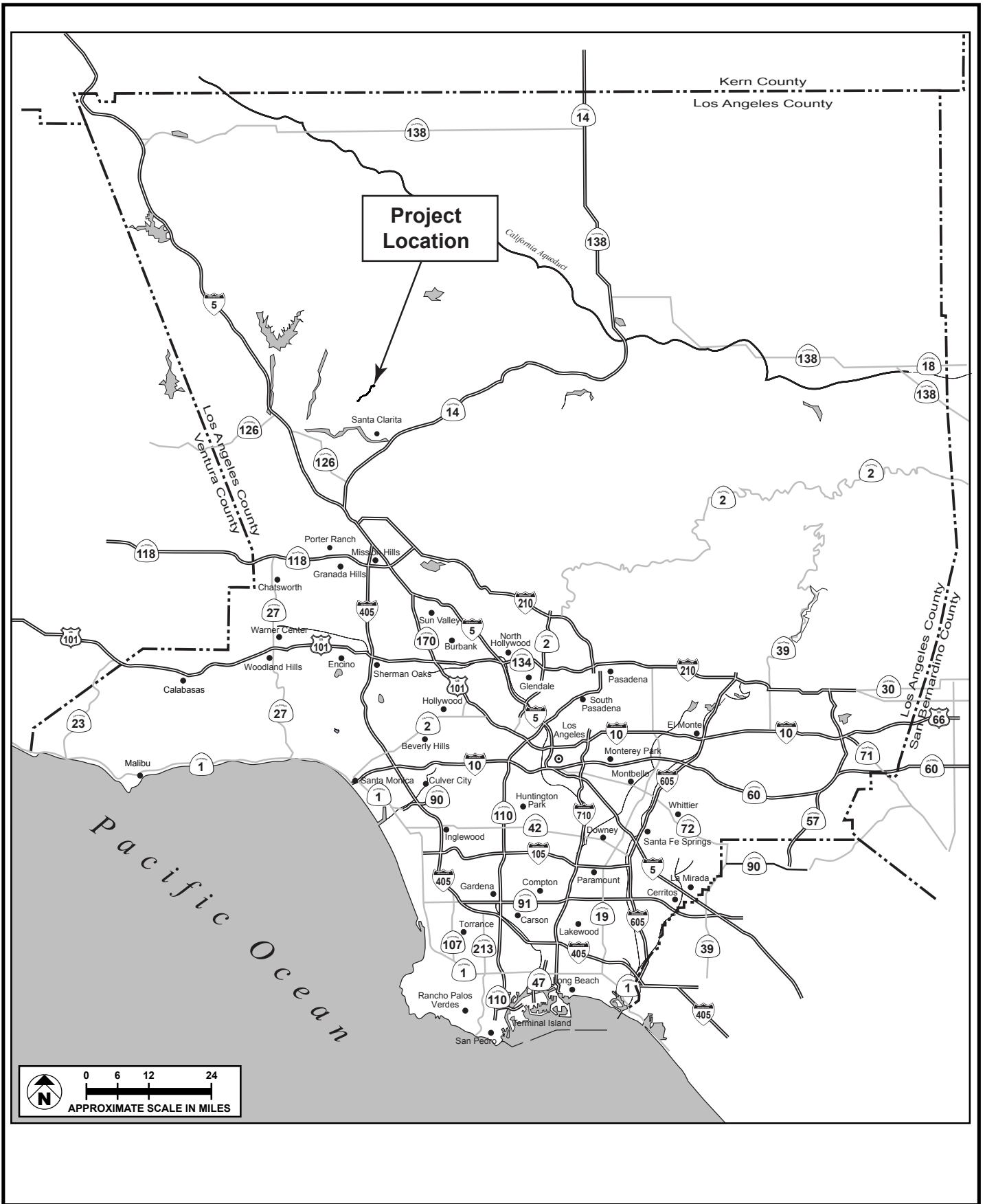


FIGURE 2.0-1



SOURCE: Santa Clarita Water Division - 2015

FIGURE 2.0-2



Project Location Map

108-001-15

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
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November 6, 2015

Mitch Evans
Santa Clarita Water Division
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Email to: mevans@meridianconsultantsllc.com

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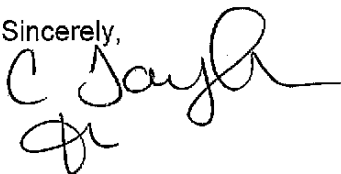
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Katy Sanchez
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**Native American Heritage Commission
Tribal Consultation List
Los Angeles County
November 6, 2015**

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This list is applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed LARC Ranch Water Pipeline, Los Angeles County.

Previously Recorded Cultural Resources within 1 Mile of the LARC Ranch Pipeline Project Area

Site #	Recorder (Year)	Approx. Distance from Project Area	Type
CA-LAN-295	Riddell (1963)	0.9 mile	Small rock shelter
CA-LAN-2040H	Rasson/LeCount (1992)	0.9 mile	Historic 20th century refuse scatter
CA-LAN-2041H	Rasson/LeCount (1992)	0.75 mile	Historic 20th century refuse scatter
CA-LAN-3016H	Vance (2001)	0.9 mile	Historic Coarse Gold Mines
CA-LAN-3534H	Ahmet/Sharp (2006)	0.7 mile	Historic Ranch and Structures
CA-LAN-3535H	Ahmet/Sharp (2006)	1.0 mile	Rock feature and survey marker
CA-LAN-3631	Paniagua (2003)	0.75 mile	Rock feature cache
CA-LAN-3632	Paniagua (2003)	0.75 mile	Rock feature cache
CA-LAN-3633	Paniagua (2003)	0.8 mile	Rock feature cache
CA-LAN-3634	Paniagua (2003)	0.7 mile	Rock feature cache
CA-LAN-100572	Ahmet (2006)	0.5 mile	Historic trash scatter/dump
CA-LAN-186915	Vance (2001)	0.3 mile	Historic road
CA-LAN-187557	Blosser, Johnson (2003)	150 feet	Historic bridge

Previous Cultural Resources Investigations within 1 Mile of the LARC Ranch Pipeline Project Site

SCCIC #	Author	Date	Title
LA-00904	Wlodarski, Robert J.	1979	An Evaluation of the Impact Upon Cultural Resources by the Proposed Development of Tentative Tracts; 30546, 30562, 30599 Located in Bouquet Canyon, Los Angeles County, California
LA-00932	Tartaglia, Louis J.	1980	Cultural Resource Survey Tentative Parcel Map Number 00000, Saugus, Los Angeles County, California
LA-01003	Dillon, Brian D.	1981	An Archaeological Resource Survey and Impact Assessment of Preliminary Land Division 6867; a 26.23 Acre Parcel in Bouquet Canyon, Los Angeles County, California
LA-01114	Toren, George A.	1976	Assessment of the Archaeological Impact by the Proposed Development of Tract No. 32615 in Valencia, California
LA-01141	Wlodarski, Robert J.	1982	An Evaluation of the Potential Impacts to Cultural Resources Located on Portions of Tentative Parcel Map 14813 Bouquet Canyon , Los Angeles, Ca
LA-01701	Dillon, Brian D.	1988	An Archaeological Resource Survey and Impact Assessment of Tentative Tract No. 46648, a 93.2 Acre Parcel on Vasquez Canyon Road in Bouquet Canyon, Northern Los Angeles County, California
LA-01846	Salls, Roy A.	1990	Report of Archaeological Reconnaissance Survey of: the Tonny Elmsdorp Property, Parcel Map 19714 3034 Bouquet Canyon Road Saugus, California 91300
LA-02590	Rasson, Judith and Roberta S. Greenwood	1992	An Archaeological Reconnaissance of Tract 31803, a 220 Acre Parcel in Plum Canyon, Los Angeles County
LA-03690	Wlodarski, Robert J.	1997	Cultural Resources Evaluation City of Santa Clarita Circulation Element Eir
LA-04057	Allen, Kathleen C. and Wakefield, Steven A.	1998	Cultural Resources Re-assessment of the Bouquet Canyon Project, County of Los Angeles (vt 52192, 52193, and 52194)
LA-04481	Singer, Clay A. and David A. Morrill	1999	Cultural Resources Survey and Impact Assessment for Larc Foundation Ranch in Bouquet Canyon, Los Angeles County, California
LA-04843	Allen, Kathleen C.	1999	Addendum to Cultural Resources Re-assessment of the Bouquet Canyon Project, County of Los Angeles (vtt 52192, 52193, and 52194)
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910 Hampshire Road, Suite V
Westlake Village, California 91631
Tel. 805.367.5720 Fax. 805.367.5733

November 11, 2015

The Honorable Anthony Morales
Chairperson, Gabrieleno/Tongva San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

Re: LARC Ranch Water Pipeline Cultural Resources Investigation, Near Santa Clarita, Los Angeles County, CA

Dear Mr. Morales,

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We respectfully request your participation in this planning process. If you or members of your community have any additional knowledge of cultural resources or Native American Sacred Lands within or near the study area, or if you have any other comment on the project, please contact me at 805-322-4689 or jcarr@meridianconsultantsllc.com.

Sincerely,



Jeff Carr

Senior Planner/Cultural Resource Specialist

Attachments:

Regional Context Map

Project Location Map

NAHC Response Letter

Table of Previously Identified Cultural Resources within 1 Mile of the Project Area

Table of Previous Cultural Resource Investigations within 1 Mile of the Project Area



SOURCE: Santa Clarita Water Division - 2015

FIGURE 2.0-2



Project Location Map

108-001-15

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX



November 6, 2015

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Santa Clarita Water Division
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Westlake Village, CA 91361

Email to: mevans@meridianconsultantsllc.com

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Dear Mr. Evans,

As of July 1, 2015, Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law. Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the potential "area of project affect" (APE).

In accordance with Public Resources Code Section 21080.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
 - If the probability is low, moderate, or high that cultural resources are located in the APE.

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 - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
- Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. The request form can be found at http://www.nahc.ca.gov/slf_request.html. USGS 7.5-minute quadrangle name, township, range, and section required for the search.

SFL Check Completed with Negative Results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

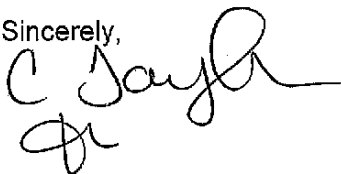
Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: katy.sanchez@nahc.ca.gov.

Sincerely,



Katy Sanchez
Associate Environmental Planner

**Native American Heritage Commission
Tribal Consultation List
Los Angeles County
November 6, 2015**

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina , CA 91723
gabrielenoindians@yahoo.com Gabrielino
(626) 926-4131

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100
Los Angeles , CA 90067
Gabrielino
(626) 676-1184 Cell

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed LARC Ranch Water Pipeline, Los Angeles County.

Previously Recorded Cultural Resources within 1 Mile of the LARC Ranch Pipeline Project Area

Site #	Recorder (Year)	Approx. Distance from Project Area	Type
CA-LAN-295	Riddell (1963)	0.9 mile	Small rock shelter
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CA-LAN-187557	Blosser, Johnson (2003)	150 feet	Historic bridge

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910 Hampshire Road, Suite V
Westlake Village, California 91631
Tel. 805.367.5720 Fax. 805.367.5733

November 11, 2015

The Honorable Sandonne Goad
Chairperson, Gabrielino/Tongva Nation
106 ½ Judge John Aiso Street, #231
Los Angeles, CA 90012

Re: LARC Ranch Water Pipeline Cultural Resources Investigation, Near Santa Clarita, Los Angeles County, CA

Dear Ms. Goad,

Meridian Consultants has been hired to perform a cultural resources investigation for the proposed LARC Ranch Water Pipeline Project located north of Santa Clarita, Los Angeles County, California. The purpose of the investigation is to provide the Santa Clarita Water Division of Castaic Lake Water Agency with information and recommendations to determine whether the project would cause substantial adverse changes to any cultural resources, as mandated by California Environmental Quality Act (CEQA). Additionally, as this project may involve a federal undertaking, the investigation is also intended to assist a federal agency in its efforts to evaluate the effects of the undertaking on historic properties, as required by Section 106 of the National Historic Preservation Act.

The project proposes to construct a 9,500-foot-long, 16-inch water pipeline that will connect to an existing 16-inch pipeline beneath Bouquet Canyon Road near Shadow Valley Lane, north of Santa Clarita, Los Angeles County, California. The pipeline will start beneath Bouquet Canyon Road along the southern side of the roadway, then would travel northeast along the northern side of the roadway and continue until reaching LARC Ranch, as shown in the attached Project Location Map. The proposed pipeline would terminate along Bouquet Canyon Road adjacent to LARC Ranch. A turnout and meter would be provided in order for LARC Ranch to connect to SCWD's 16-inch pipeline. Construction staging areas have been proposed including one adjacent to the southeast of Bouquet Canyon Road near Shadow Valley Lane and areas within the LARC Ranch property. The project will travel through S33 T5N R15W, S32 T5N R15W, S5 T4N R15W, and S6 T4N R15W of the USGS Mint Canyon, CA 7.5' Quadrangle.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) identified no Native American cultural resources in the immediate project area. The NAHC also provided Meridian Consultants a list of Native American organizations that may have knowledge of cultural resources in the project area, which included your name and contact information. The NAHC's response is attached for your reference.

Meridian Consultants performed an archaeological/historic records search at the South Central Coastal Information Center at California State University, Fullerton on October 14, 2015 to identify previous cultural resource studies and previously recorded cultural resources within the project vicinity. That search identified 13 previously recorded cultural resources within 1 mile of the project area, but no resources within the project area itself. The previously identified cultural resources are summarized in an attached table.

The records search also identified more than 30 previous cultural resource studies that have been undertaken within a 1-mile radius of the project area (summarized in an attached table) including a previous archaeological field survey of the project area performed in 1990, which identified no prehistoric or historic cultural resources within the project area. The project area was again surveyed by Meridian Consultants on October 19, 2015, which also resulted in the identification of no exposed historic or prehistoric cultural resources.

We respectfully request your participation in this planning process. If you or members of your community have any additional knowledge of cultural resources or Native American Sacred Lands within or near the study area, or if you have any other comment on the project, please contact me at 805-322-4689 or jcarr@meridianconsultantsllc.com.

Sincerely,



Jeff Carr

Senior Planner/Cultural Resource Specialist

Attachments:

Regional Context Map

Project Location Map

NAHC Response Letter

Table of Previously Identified Cultural Resources within 1 Mile of the Project Area

Table of Previous Cultural Resource Investigations within 1 Mile of the Project Area



SOURCE: Santa Clarita Water Division - 2015

FIGURE 2.0-2



Project Location Map

108-001-15

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX



November 6, 2015

Mitch Evans
Santa Clarita Water Division
910 Hampshire Road, Suite V
Westlake Village, CA 91361

Email to: mevans@meridianconsultantsllc.com

RE: Native American Consultation, Pursuant to Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2, LARC Ranch Water Pipeline, Los Angeles County

Dear Mr. Evans,

As of July 1, 2015, Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

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The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law. Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the potential "area of project affect" (APE).

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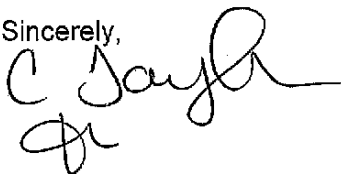
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This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: katy.sanchez@nahc.ca.gov.

Sincerely,



Katy Sanchez
Associate Environmental Planner

**Native American Heritage Commission
Tribal Consultation List
Los Angeles County
November 6, 2015**

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina , CA 91723
gabrielenoindians@yahoo.com Gabrielino
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Gabrieleno/Tongva San Gabriel Band of Mission Indians
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This list is applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed LARC Ranch Water Pipeline, Los Angeles County.

Previously Recorded Cultural Resources within 1 Mile of the LARC Ranch Pipeline Project Area

Site #	Recorder (Year)	Approx. Distance from Project Area	Type
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November 11, 2015

The Honorable Robert F. Dorame
Tribal Chair/Cultural Resources, Gabrielino Tongva Indians of California Tribal Council
P.O. Box 490
Bellflower, CA 90707

Re: LARC Ranch Water Pipeline Cultural Resources Investigation, Near Santa Clarita, Los Angeles County, CA

Dear Mr. Dorame,

Meridian Consultants has been hired to perform a cultural resources investigation for the proposed LARC Ranch Water Pipeline Project located north of Santa Clarita, Los Angeles County, California. The purpose of the investigation is to provide the Santa Clarita Water Division of Castaic Lake Water Agency with information and recommendations to determine whether the project would cause substantial adverse changes to any cultural resources, as mandated by California Environmental Quality Act (CEQA). Additionally, as this project may involve a federal undertaking, the investigation is also intended to assist a federal agency in its efforts to evaluate the effects of the undertaking on historic properties, as required by Section 106 of the National Historic Preservation Act.

The project proposes to construct a 9,500-foot-long, 16-inch water pipeline that will connect to an existing 16-inch pipeline beneath Bouquet Canyon Road near Shadow Valley Lane, north of Santa Clarita, Los Angeles County, California. The pipeline will start beneath Bouquet Canyon Road along the southern side of the roadway, then would travel northeast along the northern side of the roadway and continue until reaching LARC Ranch, as shown in the attached Project Location Map. The proposed pipeline would terminate along Bouquet Canyon Road adjacent to LARC Ranch. A turnout and meter would be provided in order for LARC Ranch to connect to SCWD's 16-inch pipeline. Construction staging areas have been proposed including one adjacent to the southeast of Bouquet Canyon Road near Shadow Valley Lane and areas within the LARC Ranch property. The project will travel through S33 T5N R15W, S32 T5N R15W, S5 T4N R15W, and S6 T4N R15W of the USGS Mint Canyon, CA 7.5' Quadrangle.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) identified no Native American cultural resources in the immediate project area. The NAHC also provided Meridian Consultants a list of Native American organizations that may have knowledge of cultural resources in the project area, which included your name and contact information. The NAHC's response is attached for your reference.

Meridian Consultants performed an archaeological/historic records search at the South Central Coastal Information Center at California State University, Fullerton on October 14, 2015 to identify previous cultural resource studies and previously recorded cultural resources within the project vicinity. That search identified 13 previously recorded cultural resources within 1 mile of the project area, but no resources within the project area itself. The previously identified cultural resources are summarized in an attached table.

The records search also identified more than 30 previous cultural resource studies that have been undertaken within a 1-mile radius of the project area (summarized in an attached table) including a previous archaeological field survey of the project area performed in 1990, which identified no prehistoric or historic cultural resources within the project area. The project area was again surveyed by Meridian Consultants on October 19, 2015, which also resulted in the identification of no exposed historic or prehistoric cultural resources.

We respectfully request your participation in this planning process. If you or members of your community have any additional knowledge of cultural resources or Native American Sacred Lands within or near the study area, or if you have any other comment on the project, please contact me at 805-322-4689 or jcarr@meridianconsultantsllc.com.

Sincerely,



Jeff Carr

Senior Planner/Cultural Resource Specialist

Attachments:

Regional Context Map

Project Location Map

NAHC Response Letter

Table of Previously Identified Cultural Resources within 1 Mile of the Project Area

Table of Previous Cultural Resource Investigations within 1 Mile of the Project Area

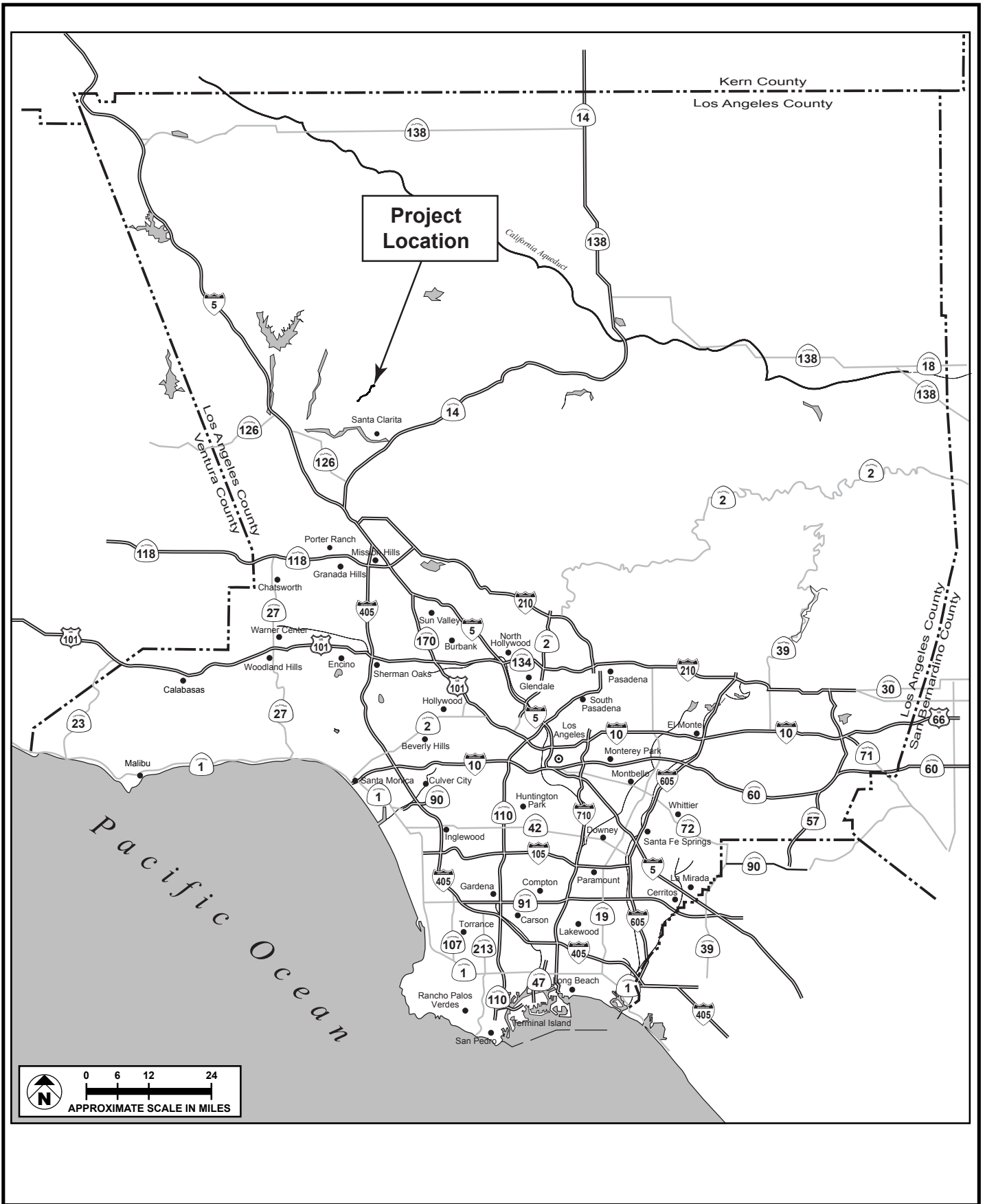


FIGURE 2.0-1



SOURCE: Santa Clarita Water Division - 2015

FIGURE 2.0-2



Project Location Map

108-001-15

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX



November 6, 2015

Mitch Evans
Santa Clarita Water Division
910 Hampshire Road, Suite V
Westlake Village, CA 91361

Email to: mevans@meridianconsultantsllc.com

RE: Native American Consultation, Pursuant to Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2, LARC Ranch Water Pipeline, Los Angeles County

Dear Mr. Evans,

As of July 1, 2015, Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law. Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the potential "area of project affect" (APE).

In accordance with Public Resources Code Section 21080.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
 - If the probability is low, moderate, or high that cultural resources are located in the APE.

- Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
 - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
- Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. The request form can be found at http://www.nahc.ca.gov/slf_request.html. USGS 7.5-minute quadrangle name, township, range, and section required for the search.

SFL Check Completed with Negative Results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

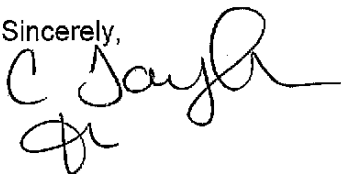
Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: katy.sanchez@nahc.ca.gov.

Sincerely,



Katy Sanchez
Associate Environmental Planner

**Native American Heritage Commission
Tribal Consultation List
Los Angeles County
November 6, 2015**

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina , CA 91723
gabrielenoindians@yahoo.com Gabrielino
(626) 926-4131

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100
Los Angeles , CA 90067
Gabrielino
(626) 676-1184 Cell

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed LARC Ranch Water Pipeline, Los Angeles County.

Previously Recorded Cultural Resources within 1 Mile of the LARC Ranch Pipeline Project Area

Site #	Recorder (Year)	Approx. Distance from Project Area	Type
CA-LAN-295	Riddell (1963)	0.9 mile	Small rock shelter
CA-LAN-2040H	Rasson/LeCount (1992)	0.9 mile	Historic 20th century refuse scatter
CA-LAN-2041H	Rasson/LeCount (1992)	0.75 mile	Historic 20th century refuse scatter
CA-LAN-3016H	Vance (2001)	0.9 mile	Historic Coarse Gold Mines
CA-LAN-3534H	Ahmet/Sharp (2006)	0.7 mile	Historic Ranch and Structures
CA-LAN-3535H	Ahmet/Sharp (2006)	1.0 mile	Rock feature and survey marker
CA-LAN-3631	Paniagua (2003)	0.75 mile	Rock feature cache
CA-LAN-3632	Paniagua (2003)	0.75 mile	Rock feature cache
CA-LAN-3633	Paniagua (2003)	0.8 mile	Rock feature cache
CA-LAN-3634	Paniagua (2003)	0.7 mile	Rock feature cache
CA-LAN-100572	Ahmet (2006)	0.5 mile	Historic trash scatter/dump
CA-LAN-186915	Vance (2001)	0.3 mile	Historic road
CA-LAN-187557	Blosser, Johnson (2003)	150 feet	Historic bridge

Previous Cultural Resources Investigations within 1 Mile of the LARC Ranch Pipeline Project Site

SCCIC #	Author	Date	Title
LA-00904	Wlodarski, Robert J.	1979	An Evaluation of the Impact Upon Cultural Resources by the Proposed Development of Tentative Tracts; 30546, 30562, 30599 Located in Bouquet Canyon, Los Angeles County, California
LA-00932	Tartaglia, Louis J.	1980	Cultural Resource Survey Tentative Parcel Map Number 00000, Saugus, Los Angeles County, California
LA-01003	Dillon, Brian D.	1981	An Archaeological Resource Survey and Impact Assessment of Preliminary Land Division 6867; a 26.23 Acre Parcel in Bouquet Canyon, Los Angeles County, California
LA-01114	Toren, George A.	1976	Assessment of the Archaeological Impact by the Proposed Development of Tract No. 32615 in Valencia, California
LA-01141	Wlodarski, Robert J.	1982	An Evaluation of the Potential Impacts to Cultural Resources Located on Portions of Tentative Parcel Map 14813 Bouquet Canyon , Los Angeles, Ca
LA-01701	Dillon, Brian D.	1988	An Archaeological Resource Survey and Impact Assessment of Tentative Tract No. 46648, a 93.2 Acre Parcel on Vasquez Canyon Road in Bouquet Canyon, Northern Los Angeles County, California
LA-01846	Salls, Roy A.	1990	Report of Archaeological Reconnaissance Survey of: the Tonny Elmsdorp Property, Parcel Map 19714 3034 Bouquet Canyon Road Saugus, California 91300
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LA-04057	Allen, Kathleen C. and Wakefield, Steven A.	1998	Cultural Resources Re-assessment of the Bouquet Canyon Project, County of Los Angeles (vt 52192, 52193, and 52194)
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LA-07428	McMorris, Christopher	2004	Caltrans Historic Bridges Inventory Update: Timber Truss, Concrete Truss, and Suspension Bridges
LA-08972	Schmidt, James J.	2007	Sce Tehachapi Renewable Transmission, Lombardi Farms Parking and Fly Yards, Bouquet Canyon road, Santa Clarita Area, Los Angeles County, California
LA-08988	Schmidt, James J.	2007	Sce Tehachapi Renewable Transmission, Pottery Yard Parking and Material Laydown Area, Santa Clarita Area, Los Angeles County, California
LA-08993	Schmidt, James J.	2007	Sce Tehachapi Renewable Transmission, Shoofly Corridor, Santa

SCCIC #	Author	Date	Title
			Clarita Area, Los Angeles County, California
LA-09035	Schmidt, James J.	2003	Negative Archaeological Survey Report Minor Land Division 30501 Bouquet Canyon Road, Saugus, Ca Tentative Parcel Map #27121
LA-09036	Romani, John F.	2003	Results of a Phase I Archaeological Survey for an 80 Acre Parcel of Land Located in Bouquet Canyon Los Angeles County, California
LA-09042	Simon, Joseph M., Tamara K. Whitley, and David S. Whitley	2004	Phase I Archaeological Survey of the Skyline Ranch Study Area, Los Angeles County, California
LA-09769	Gust, Sherri and Amy Glover	2008	Supplemental Cultural Resources Assessment, Segment 1, Section 1, Tehachapi Renewable Transmission Project, Variance for Wire Stringing Location near Construction Tower 25, Los Angeles County, California
LA-09770	Harper, Veronica and Sherri Gust	2009	Supplemental Archaeological and Paleontological Assessment, Segment 1, Section 1, Tehachapi Renewable Transmission Project, Variance for Increased Distribution Space at WSS 13, Los Angeles County, California
LA-09852	(unknown)	2009	Verizon Cellular Communications Co-location Site: Vasquez Canyon, Saugus, CA
LA-09920	Schmidt, James J., June A. Schmidt, and Gwen R. Romani	2008	Results of the Class III Cultural Resources Investigation for the Southern California Edison Tehachapi Renewable Transmission Project (TRTP) Segment 1, Angeles National Forest and Adjacent Lands, Los Angeles County, California ARR Np. 05-01-01079
LA-10140	Vance, Darrell W.	2001	Heritage Resources Evaluation of the 2001 Rim of the World Rally Course A.R.R. # 05-01-00-633
LA-10205	Messick, Peter	2003	Archaeological Investigation for Meadow Peak Project, Vesting Tentative Tract Map 47760 with Final Report
LA-10559	Schmidt, James J.	2000	Archaeological Impact Analysis: Vesting Tentative Tract Map 43589, 7.5 Acres in Bouquet Canyon Area, Los Angeles County
LA-11002	Switalski, Hubert	2011	Archaeological Survey Report for the Southern California Edison Company's Proposed Replacement of one Deteriorated Pole Structure on the Bouquet 16kV Distribution Circuits, Santa Clarita, Los Angeles County, California
LA-11713	Schmidt, James	2012	Archaeological Survey Report for Southern California Edison Company's Replacement of Two Deteriorated Power Pole Structures on the Bouquet 16 kV and Trumpet 16 kV Distribution Circuits, Santa Clarita, Los Angeles County, CA
LA-12691	Simon, Joseph	2010	Class III Inventory/Phase I Archaeological Survey of the Fire Station 128 Alternate Site, Los Angeles County, California



910 Hampshire Road, Suite V
Westlake Village, California 91631
Tel. 805.367.5720 Fax. 805.367.5733

November 11, 2015

The Honorable Linda Candelaria
Co-Chairperson, Gabrielino-Tongva Tribe
1999 Avenue of the Stars, Suite 1100
Los Angeles, CA 90067

Re: LARC Ranch Water Pipeline Cultural Resources Investigation, Near Santa Clarita, Los Angeles County, CA

Dear Ms. Candelaria,

Meridian Consultants has been hired to perform a cultural resources investigation for the proposed LARC Ranch Water Pipeline Project located north of Santa Clarita, Los Angeles County, California. The purpose of the investigation is to provide the Santa Clarita Water Division of Castaic Lake Water Agency with information and recommendations to determine whether the project would cause substantial adverse changes to any cultural resources, as mandated by California Environmental Quality Act (CEQA). Additionally, as this project may involve a federal undertaking, the investigation is also intended to assist a federal agency in its efforts to evaluate the effects of the undertaking on historic properties, as required by Section 106 of the National Historic Preservation Act.

The project proposes to construct a 9,500-foot-long, 16-inch water pipeline that will connect to an existing 16-inch pipeline beneath Bouquet Canyon Road near Shadow Valley Lane, north of Santa Clarita, Los Angeles County, California. The pipeline will start beneath Bouquet Canyon Road along the southern side of the roadway, then would travel northeast along the northern side of the roadway and continue until reaching LARC Ranch, as shown in the attached Project Location Map. The proposed pipeline would terminate along Bouquet Canyon Road adjacent to LARC Ranch. A turnout and meter would be provided in order for LARC Ranch to connect to SCWD's 16-inch pipeline. Construction staging areas have been proposed including one adjacent to the southeast of Bouquet Canyon Road near Shadow Valley Lane and areas within the LARC Ranch property. The project will travel through S33 T5N R15W, S32 T5N R15W, S5 T4N R15W, and S6 T4N R15W of the USGS Mint Canyon, CA 7.5' Quadrangle.

A Sacred Lands File Search conducted by the Native American Heritage Commission (NAHC) identified no Native American cultural resources in the immediate project area. The NAHC also provided Meridian Consultants a list of Native American organizations that may have knowledge of cultural resources in the project area, which included your name and contact information. The NAHC's response is attached for your reference.

Meridian Consultants performed an archaeological/historic records search at the South Central Coastal Information Center at California State University, Fullerton on October 14, 2015 to identify previous cultural resource studies and previously recorded cultural resources within the project vicinity. That search identified 13 previously recorded cultural resources within 1 mile of the project area, but no resources within the project area itself. The previously identified cultural resources are summarized in an attached table.

The records search also identified more than 30 previous cultural resource studies that have been undertaken within a 1-mile radius of the project area (summarized in an attached table) including a previous archaeological field survey of the project area performed in 1990, which identified no prehistoric or historic cultural resources within the project area. The project area was again surveyed by Meridian Consultants on October 19, 2015, which also resulted in the identification of no exposed historic or prehistoric cultural resources.

We respectfully request your participation in this planning process. If you or members of your community have any additional knowledge of cultural resources or Native American Sacred Lands within or near the study area, or if you have any other comment on the project, please contact me at 805-322-4689 or jcarr@meridianconsultantsllc.com.

Sincerely,



Jeff Carr

Senior Planner/Cultural Resource Specialist

Attachments:

Regional Context Map

Project Location Map

NAHC Response Letter

Table of Previously Identified Cultural Resources within 1 Mile of the Project Area

Table of Previous Cultural Resource Investigations within 1 Mile of the Project Area

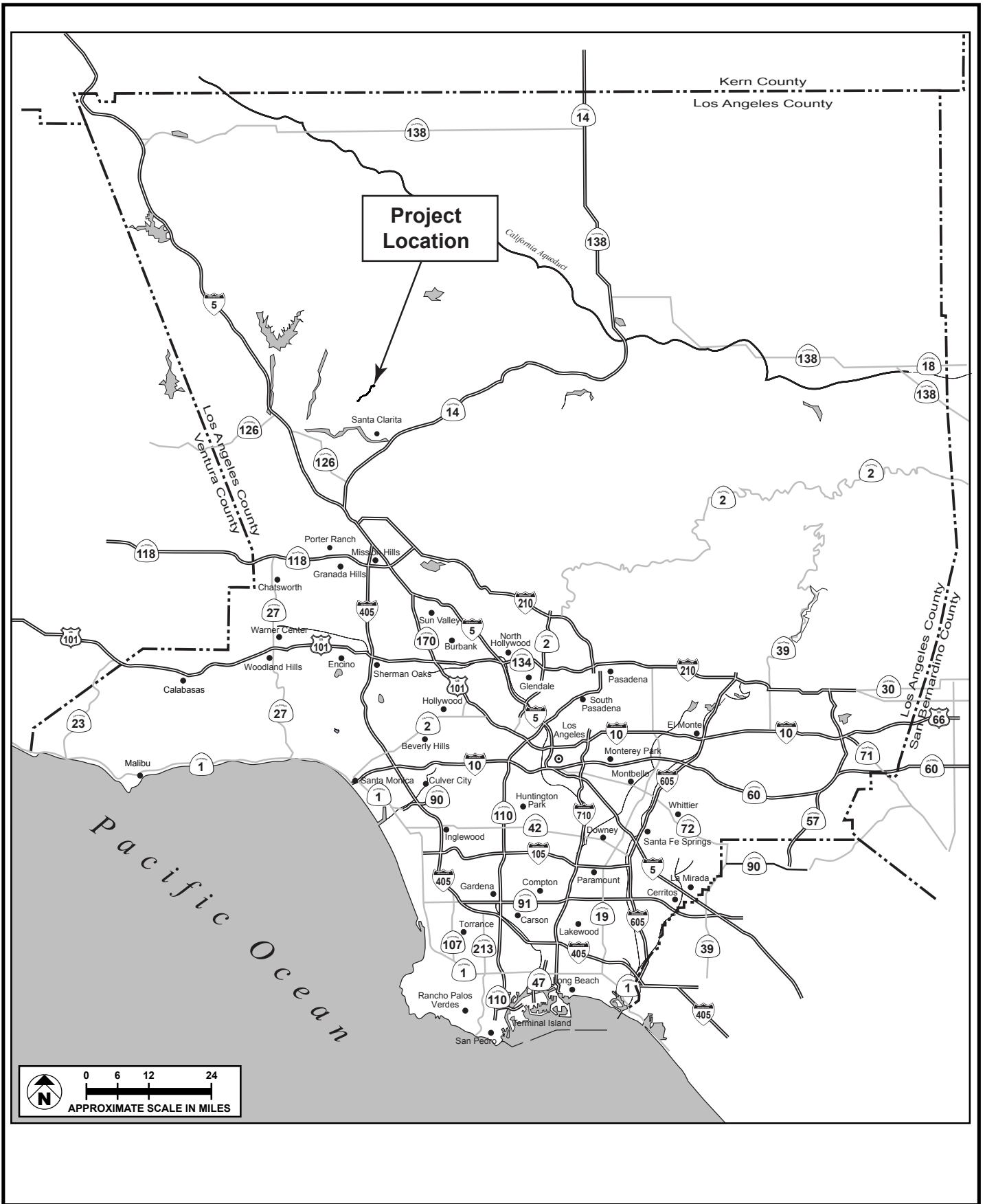


FIGURE 2.0-1



SOURCE: Santa Clarita Water Division - 2015

FIGURE 2.0-2



Project Location Map

108-001-15

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX



November 6, 2015

Mitch Evans
Santa Clarita Water Division
910 Hampshire Road, Suite V
Westlake Village, CA 91361

Email to: mevans@meridianconsultantsllc.com

RE: Native American Consultation, Pursuant to Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2, LARC Ranch Water Pipeline, Los Angeles County

Dear Mr. Evans,

As of July 1, 2015, Public Resources Code Sections 21080.1, 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law. Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the potential "area of project affect" (APE).

In accordance with Public Resources Code Section 21080.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
 - If the probability is low, moderate, or high that cultural resources are located in the APE.

- Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
 - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
- Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. The request form can be found at http://www.nahc.ca.gov/slf_request.html. USGS 7.5-minute quadrangle name, township, range, and section required for the search.

SFL Check Completed with Negative Results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

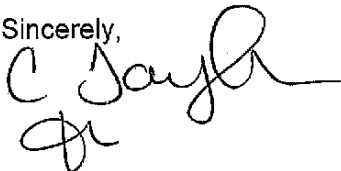
Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: katy.sanchez@nahc.ca.gov.

Sincerely,



Katy Sanchez
Associate Environmental Planner

**Native American Heritage Commission
Tribal Consultation List
Los Angeles County
November 6, 2015**

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina , CA 91723
gabrielenoindians@yahoo.com Gabrielino
(626) 926-4131

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100
Los Angeles , CA 90067
Gabrielino
(626) 676-1184 Cell

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed LARC Ranch Water Pipeline, Los Angeles County.

Previously Recorded Cultural Resources within 1 Mile of the LARC Ranch Pipeline Project Area

Site #	Recorder (Year)	Approx. Distance from Project Area	Type
CA-LAN-295	Riddell (1963)	0.9 mile	Small rock shelter
CA-LAN-2040H	Rasson/LeCount (1992)	0.9 mile	Historic 20th century refuse scatter
CA-LAN-2041H	Rasson/LeCount (1992)	0.75 mile	Historic 20th century refuse scatter
CA-LAN-3016H	Vance (2001)	0.9 mile	Historic Coarse Gold Mines
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CA-LAN-187557	Blosser, Johnson (2003)	150 feet	Historic bridge

Previous Cultural Resources Investigations within 1 Mile of the LARC Ranch Pipeline Project Site

SCCIC #	Author	Date	Title
LA-00904	Wlodarski, Robert J.	1979	An Evaluation of the Impact Upon Cultural Resources by the Proposed Development of Tentative Tracts; 30546, 30562, 30599 Located in Bouquet Canyon, Los Angeles County, California
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LA-01141	Wlodarski, Robert J.	1982	An Evaluation of the Potential Impacts to Cultural Resources Located on Portions of Tentative Parcel Map 14813 Bouquet Canyon , Los Angeles, Ca
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LA-08972	Schmidt, James J.	2007	Sce Tehachapi Renewable Transmission, Lombardi Farms Parking and Fly Yards, Bouquet Canyon road, Santa Clarita Area, Los Angeles County, California
LA-08988	Schmidt, James J.	2007	Sce Tehachapi Renewable Transmission, Pottery Yard Parking and Material Laydown Area, Santa Clarita Area, Los Angeles County, California
LA-08993	Schmidt, James J.	2007	Sce Tehachapi Renewable Transmission, Shoofly Corridor, Santa

SCCIC #	Author	Date	Title
			Clarita Area, Los Angeles County, California
LA-09035	Schmidt, James J.	2003	Negative Archaeological Survey Report Minor Land Division 30501 Bouquet Canyon Road, Saugus, Ca Tentative Parcel Map #27121
LA-09036	Romani, John F.	2003	Results of a Phase I Archaeological Survey for an 80 Acre Parcel of Land Located in Bouquet Canyon Los Angeles County, California
LA-09042	Simon, Joseph M., Tamara K. Whitley, and David S. Whitley	2004	Phase I Archaeological Survey of the Skyline Ranch Study Area, Los Angeles County, California
LA-09769	Gust, Sherri and Amy Glover	2008	Supplemental Cultural Resources Assessment, Segment 1, Section 1, Tehachapi Renewable Transmission Project, Variance for Wire Stringing Location near Construction Tower 25, Los Angeles County, California
LA-09770	Harper, Veronica and Sherri Gust	2009	Supplemental Archaeological and Paleontological Assessment, Segment 1, Section 1, Tehachapi Renewable Transmission Project, Variance for Increased Distribution Space at WSS 13, Los Angeles County, California
LA-09852	(unknown)	2009	Verizon Cellular Communications Co-location Site: Vasquez Canyon, Saugus, CA
LA-09920	Schmidt, James J., June A. Schmidt, and Gwen R. Romani	2008	Results of the Class III Cultural Resources Investigation for the Southern California Edison Tehachapi Renewable Transmission Project (TRTP) Segment 1, Angeles National Forest and Adjacent Lands, Los Angeles County, California ARR Np. 05-01-01079
LA-10140	Vance, Darrell W.	2001	Heritage Resources Evaluation of the 2001 Rim of the World Rally Course A.R.R. # 05-01-00-633
LA-10205	Messick, Peter	2003	Archaeological Investigation for Meadow Peak Project, Vesting Tentative Tract Map 47760 with Final Report
LA-10559	Schmidt, James J.	2000	Archaeological Impact Analysis: Vesting Tentative Tract Map 43589, 7.5 Acres in Bouquet Canyon Area, Los Angeles County
LA-11002	Switalski, Hubert	2011	Archaeological Survey Report for the Southern California Edison Company's Proposed Replacement of one Deteriorated Pole Structure on the Bouquet 16kV Distribution Circuits, Santa Clarita, Los Angeles County, California
LA-11713	Schmidt, James	2012	Archaeological Survey Report for Southern California Edison Company's Replacement of Two Deteriorated Power Pole Structures on the Bouquet 16 kV and Trumpet 16 kV Distribution Circuits, Santa Clarita, Los Angeles County, CA
LA-12691	Simon, Joseph	2010	Class III Inventory/Phase I Archaeological Survey of the Fire Station 128 Alternate Site, Los Angeles County, California

APPENDIX C

Personnel Qualifications

JEFF CARR
Senior Planner/Cultural Resource Specialist

EDUCATION

- In Progress Master of Arts, Geography (GIS Option), California State University, Northridge, CA
- 1998 Master of Arts, Anthropology, Iowa State University, Ames, IA
- 1998 Master of Science, Architectural Studies, Iowa State University, Ames, IA
- 1995 Bachelor of Arts, Anthropology Major/History Minor, Iowa State University, Ames, IA

EXPERIENCE

- June 2015–March 2016, Senior Planner/Cultural Resource Specialist, Meridian Consultants, Westlake Village, CA
- July 2013–Present, Archaeologist/Architectural Historian (on-call/intermittent) WHPacific, Portland, OR
- July 2013–June 2015, Compliance Officer/Research Specialist, California State University, Northridge, CA
- Nov. 2010–Aug. 2012, Architectural Historian, State Historic Preservation Office of Iowa, Des Moines, IA
- Dec. 2009–Nov. 2010, Lead Historic Preservation Specialist, FEMA, Urbandale, IA
- Oct. 2004–Nov. 2009, Senior Historian, Georgia Department of Transportation, Atlanta, GA
- July 2003–Oct. 2004, Archaeologist (Field Director), TRC Environmental, Atlanta, GA
- Aug. 1999–July 2003, Curatorial Assistant for Repatriation/Archives Technician, Harvard University, Peabody Museum of Archaeology and Ethnology, Cambridge, MA
- Mar. 1999–May 1999, Archaeological Technician, Louis Berger & Associates, Inc., Marion, IA
- Oct. 1998–Nov. 1998, Archaeological Technician, Office of the State Archaeologist of Iowa, Iowa City, IA
- July 1997–July 1998, Research Assistant (Laboratory Manager), Iowa State University Archaeological Laboratory, Ames, IA
- Aug. 1996–Dec. 1997, Teaching Assistant, Department of Anthropology, Iowa State University, Ames, IA
- May 1996–July 1996, Archaeological Technician, the Community of Nijmegen, Netherlands
- Sept. 1995–April 1996, Archaeological Technician, Office of the State Archaeologist of Iowa, Iowa City, IA

JOB-RELATED TRAINING

- Address Geocoding with ArcGIS, March 2015, Esri Training
- Referencing Data to Real-World Locations Using ArcGIS, February 2015, Esri Training
- Advanced Section 106 Seminar, June 9, 2011, Minneapolis, Minnesota, Advisory Council on Historic Preservation
- Advanced Methods of FEMA's Historic Preservation Program (E265), June 28, 2010–July 1, 2010, Emmitsburg, Maryland, FEMA, Emergency Management Institute

Coordinating Environmental and Historic Preservation Compliance (IS-253), May 2010, Emergency Management Institute Virtual Campus, FEMA, Emergency Management Institute

Identification and Evaluation of Mid-20th-Century Buildings, June 8-9, 2009, Atlanta, Georgia, National Preservation Institute

Researching and Writing Agreements under Section 106 of the NHPA, April 1-3, 2008, Atlanta, Georgia, American Council of Engineering Companies

Context-Sensitive Solutions, October 17-19, 2006, Atlanta, Georgia, National Highway Institute & Federal Highway Administration

Streamlining Section 106 and the Environmental Policy Act, November 14-15, 2005, Atlanta, Georgia, SRI Foundation

Section 106: An Introduction, May 3-5, 2005, Washington, DC, National Preservation Institute

TECHNICAL REPORTS, PUBLICATIONS, & PRESENTATIONS

2009 Co-authored with William Whittaker, "Fort Atkinson, Iowa 1840-1849," in *Frontier Forts of Iowa: Indians, Traders, and Soldiers, 1682-1862*. University of Iowa Press, Iowa City, IA.

2009 Long Acres Subdivision Historic District Architectural Context Study, Fulton County, Georgia. Occasional Papers in Cultural Resource Management #19. Georgia Department of Transportation, Atlanta, GA.

2009 Architectural Context Study of the Long Acres Subdivision Historic District, presentation at the joint Association of Transportation Archaeologists/Society for American Archaeology Meeting, Atlanta, GA.

2004–2009 Prepared more than 50 historic resources survey reports, more than 30 assessments of effects documents, memoranda of agreement, and permanent archival record packages, including HABS/HAER documentation. Georgia Department of Transportation, Atlanta, GA.

2003-2004 Authored, co-authored, and contributed to several cultural resources survey reports, some as Principal Investigator. TRC Environmental, Inc., Atlanta, GA.

1999–2001 Contributed to quarterly reports that documented collections of human remains and funerary objects and made cultural affiliation determinations in compliance with the Native American Graves Protection and Repatriation Act. Peabody Museum, Harvard University, Cambridge, MA.

1998–1999 Contributed to archaeological survey reports. Iowa State University Archaeological Laboratory, Ames, IA.

1997 Archaeological Investigations of a Nineteenth-Century Coal Mining Settlement in Central Iowa. Paper co-authored with Jason Titcomb and presented at 55th Annual Plains Anthropological Conference, Boulder, CO.

MITCH EVANS

Cultural Resource Specialist/GIS Specialist

EDUCATION

In Progress Master of Arts, Anthropology, California State University, Los Angeles, CA

2012 GIS Certificate, California State University, Los Angeles, CA

2009 Bachelor of Arts, Anthropology, University of California, Los Angeles, CA

EXPERIENCE

June 2015–October 2015, Cultural Resource Specialist/GIS Specialist, Meridian Consultants, Westlake Village, CA

September 2014–June 2015, Staff Archaeologist, Applied Earthworks, Pasadena, CA

April 2013–Present, Archaeological Field Technician/GIS technician, SWCA, Pasadena, CA

December 2012–January 2013, Cultural Monitor, Power Engineers, Los Angeles, CA

September 2010–September 2012, Associate Archaeologist, Tierra Environmental, San Diego, CA

August 2010–September 2010, Crew member, ASM Affiliates, San Diego, CA

June 2010–September 2010, Paleontological Lab technician, Paleo Solutions, Costa Mesa, CA

May 2010–June 2010, Archaeological technician, William Self Associates, in Beaver, UT

May 3–May 6, 2010, Archaeological technician, ASM Affiliates, El Centro, CA

October 2009–April 2010, Archaeological technician, Paleo Solutions, Angeles National Forest, CA and Twentynine Palms, CA

August 2009–October 2009, Crew member, William Self Associates, UT

July 2009, Volunteer technician, San Diego Mission, San Diego, CA

June 2009, Crew member, Instituto Nacional de Anthropologia e Historia, Baja California, Mexico

August 2008–June 2009, Research Assistant, Cotsen Institute, University of California, Los Angeles, CA

July–August 2008, Student Researcher/Excavator, UCLA Summer Field School, University of Reading, UK

TECHNICAL REPORTS, PUBLICATIONS, & PRESENTATIONS

2013 Society for California Archaeology; Poster Presentation: Lithic Procurement at Tule Creek Village, San Nicolas Island

2014 Society for California Archaeology; Poster Presentation: Poster: GIS Applications for Prehistoric Site Attribute Analysis of the Santa Monica Mountains Region

2014 Society for California Archaeology; Co-Author: Points of Interest at Big Sycamore Canyon: Flake stone tool analysis

APPENDIX D

Noise Measurement Data

LARC Ranch Water Pipeline Project
 Noise Location 1 (Ranch Entrance)

Record #	Date	Time	Duration	Run Time	LAeq	LAE	LASmin	LASmin Time	LASmax	LASmax Time	LApeak (max)	LApeak (max) Time
1	2015/10/24	10:59:28	00:00:32.0	00:00:32.0	56.9	72.0	48.2	10:59:37	65.6	10:59:59	83.7	10:59:44
2	2015/10/24	11:00:00	00:43:34.7	00:43:34.7	67.3	101.5	41.9	11:09:28	95.8	11:18:53	132.7	11:18:53

Prepared by Meridian Consultants LLC

LARC Ranch Water Pipeline Project
 Noise 2 Location (Ranch)

Record #	Date	Time	Duration	Run Time	LAeq	LAE	LASmin	LASmin Time	LASmax	LASmax Time	LApeak (max)	LApeak (max) Time
1	2015/10/24	12:11:19	00:15:13.9	00:15:13.9	50.8	80.4	43.2	12:16:30	64.5	12:15:04	90.6	12:15:04

Prepared by Meridian Consultants LLC

LARC Ranch Water Pipeline Project
 Noise Location 3 (Ranch TurnAround)

Record #	Date	Time	Duration	Run Time	LAeq	LAE	LASmin	LASmin Time	LASmax	LASmax Time	LApeak (max)	LApeak (max) Time
1	2015/10/24	09:04:23	00:17:43.6	00:17:43.6	62.8	93.1	34.6	09:21:34	77.7	09:10:34	90.4	09:10:34

Prepared by Meridian Consultants LLC

LARC Ranch Water Pipeline Project
 Noise Location 4 (Mobile Home Village)

Record #	Date	Time	Duration	Run Time	LAeq	LAE	LASmin	LASmin Time	LASmax	LASmax Time	LApeak (max)	LApeak (max) Time
1	2015/10/24	09:41:49	00:15:04.1	00:15:04.1	67.5	97.1	32.9	09:52:46	81.7	09:47:39	96.2	09:47:39

Prepared by Meridian Consultants LLC

LARC Ranch Water Pipeline Project
 Noise Location 5 (Southern Potential Staging Area)

Record #	Date	Time	Duration	Run Time	LAeq	LAE	LASmin	LASmin Time	LASmax	LASmax Time	LApeak (max)	LApeak (max) Time
1	2015/10/24	10:12:14	00:18:21.6	00:18:21.6	70.3	100.7	45.1	10:27:08	87.2	10:21:33	106.1	10:21:32

Prepared by Meridian Consultants LLC

APPENDIX B

LARC Ranch Water Pipeline NOI

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION **DEC 14 2016**

LOS ANGELES COUNTY CLERK

Notice is hereby given that the Lead Agency named below has completed an Initial Study of the following project at the following location:

Lead Agency:	Santa Clarita Water, a Division of Castaic Lake Water Agency (SCWD)
Project Name:	LARC Ranch Water Pipeline Project
Project Description:	The proposed Project would include the construction of a new 12-inch ductile iron water transmission line by connecting to the nearest SCWD water line at Shadow Valley Lane and extending approximately 9,500 linear feet to a new service meter at the frontage of the LARC Ranch property (Project Site). The width of the alignment would range from 30 inches for the water pipeline trench to 20 feet for the temporary closure of the Bouquet Canyon Road southbound lane. The water pipeline alignment would traverse from southwest to the northeast within the public roadway right-of-way along Bouquet Canyon Road. The pipeline alignment was developed specifically to provide for connections by LARC and other existing residential and commercial water users along Bouquet Canyon Road, while minimizing conflicts with other existing utilities. The project as proposed would include an on-site booster pump station and pipeline located on LARC grounds to connect and fill the existing 0.36 million gallon storage tank from the new service meter. The on-site pump station would include two 10 horsepower pumps within a (less than 200 square-foot) block wall building. The pump station would be approximately 10-feet high and located adjacent to similar type of walled enclosures. A new 4-inch polyvinyl chloride (PVC) pipeline would extend approximately 700 feet from a SCWD service meter to the pump station.
Project Location:	The proposed Project is located along Bouquet Canyon Road in unincorporated Los Angeles County north of the City of Santa Clarita. The 12-inch pipeline would be located beneath Bouquet Canyon Road between Shadow Valley Lane and the LARC Ranch property. The 4-inch PVC pipeline would traverse from west to east across the LARC Ranch property. Two construction staging areas are included as part of the Project. The Project location is shown on Figure 2.1 of the Initial Study/Mitigated Negative Declaration.

This Initial Study was completed in accordance with the Lead Agency's Guidelines implementing the California Environmental Quality Act. On the basis of the Initial Study, the Lead Agency's Staff has concluded that the project, with the incorporation of mitigation measures, will not have a significant effect on the environment, and has therefore prepared a Draft Mitigated Negative Declaration. The Initial Study reflects the independent judgment of the Lead Agency.

- The Project site **IS** on a list compiled pursuant to Government Code section 65962.5.
- The Project site **IS NOT** on a list compiled pursuant to Government Code section 65962.5.
- The proposed project site **IS** considered a project of statewide, regional or areawide significance.
- The proposed project site **IS NOT** considered a project of statewide, regional or areawide significance.
- The proposed project **WILL** affect highways or other facilities under the jurisdiction of the State Department of Transportation.
- The proposed project **WILL NOT** affect highways or other facilities under the jurisdiction of the State Department of Transportation.
- A scoping meeting **WILL** be held by the lead agency.
- A scoping meeting **WILL NOT** be held by the lead agency.

Copies of the Initial Study and Draft Mitigated Negative Declaration are on file and are available for public review online at <https://santaclaritawater.com/> and <https://www.clwa.org/> and at the Lead Agency's office, see below, and at the City of Santa Clarita Public Library, Valencia Branch at 23743 Valencia Blvd., Santa Clarita, CA, 91355; City of Santa Clarita Public Library, Canyon Country at 18601 Soledad Canyon Road, Santa Clarita, CA, 91351; and Los Angeles County Stevenson Ranch Library at 25950 The Old Road, Stevenson Ranch, CA 91381.

Lead Agency Address: 26521 Summit Circle, Santa Clarita, CA 91350

The review period for this project starts on December 14, 2016, and ends on January 13, 2017. **Comments will be received until 1/13/2017.** Any person wishing to comment on this matter must submit such comments, in writing, to the Lead Agency prior to this date. Comments of all Responsible Agencies are also requested. The Lead Agency will consider the project and the Draft Mitigated Negative Declaration at its meeting on:

Date: February 8, 2017 **Time:** 6:15 PM

If the Lead Agency finds that the project will not have a significant effect on the environment, it may adopt the Mitigated Negative Declaration.

Date Received
for Filing: _____


Keith Abercrombie

(Clerk stamp here)

Retail Manager
Santa Clarita Water Division

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Castaic Lake Water Agency Memorandum

February 10, 2017

To: Retail Operations Committee

From: Keith Abercrombie *KA*
Retail Manager

Subject: Recommend Adoption of a Resolution Approving the SB 221 Water Supply Verification for Skyline Ranch Project (VTTM 60922)

SUMMARY

The County of Los Angeles Department of Public Works conditioned approval of Tentative Tract Map No. 060922-1, referred to as the Skyline Ranch Project (Project), on obtaining a Water Supply Verification (WSV) for the Project in accordance with Government Code section 66473.7, commonly referred to as Senate Bill (SB) 221. The County is the lead agency for the Project under the California Environmental Quality Act (CEQA) and the County is responsible for all land use decisions related to the Project. SCWD staff have prepared a WSV (attached) for consideration and proposed action by the Board of Directors of the Castaic Lake Water Agency (CLWA) as the governing body of SCWD.

DISCUSSION

County Requirement for SB 221 WSV – The County certified a Final Environmental Impact Report (EIR) in May 2010 for the Project to allow for the development of up to 1,260 residential units, parks, a school, and landscaped slopes. The Final EIR concluded, based in part on the information and analyses contained in a Water Supply Assessment prepared and adopted by SCWD pursuant to Water Code section 10910 (commonly referred to as SB 610), that there is adequate water supply to serve the Project in addition to SCWD's existing and planned future uses. On December 20, 2016, the County approved an Addendum to the Final EIR that reduced the number of approved dwelling units for the development from 1,260 to 1,220 residential units. The Project is subject to SB 221 because it includes a proposed residential development of more than 500 dwelling units. As required by SB 221, the County conditioned approval of TTM 060922-1 on obtaining a WSV which shows that a sufficient water supply will be available for the Project along with existing and planned uses.

SB 221 WSV Requirements, Analysis and Conclusions – In accordance with SB 221, the WSV evaluates, among other things, whether the total projected water supplies available to SCWD during normal, single-dry, and multiple-dry years over a 20-year projection will be sufficient to meet the projected demand associated with the Project, in addition to SCWD's other existing and planned future uses, including but not limited to agricultural and industrial uses. SCWD staff prepared the attached WSV in accordance with the statutory requirements of SB 221, including but not limited to a detailed analysis of existing and projected demand and supply for normal, single-dry and multiple dry-years over a minimum 20-year projection. As shown in the WSV, water demand for the Project at build-out is estimated to be about 1,540 acre-feet in a normal year and 1,694 acre-feet in a dry year, based on the Addendum to the Final EIR approved December 20, 2016 for up to 1,220 residential units, parks, a school, and landscaped slopes. The WSV is based in part on several water supply planning documents, such as the California Department of Water Resources 2015 SWP Delivery Capability Report, the most recently adopted regional 2015 Urban Water Management Plan (2015 UWMP), the 2015 Santa Clarita Valley Water Report,

and the 2013 SCWD Water Master Plan. Importantly, the water demands associated with the Project were accounted for as part of SCWD's projected water demands in the 2015 UWMP. Moreover, because SCWD previously prepared a Water Supply Assessment that concluded there will be a sufficient water supply for the Project, the water demands associated with the Project are already considered as a part of SCWD's "planned future uses" and do not represent an unanticipated demand on SCWD supplies.

Based on the requirements of Government Code section 66473.7 and the supporting documentation contained in the administrative record, the WSV concludes that the total water supplies available to SCWD during normal, single-dry, and multiple-dry years over a 20-year projection will be sufficient to meet the projected demand associated with the Project in addition to SCWD's other existing and planned future uses, including but not limited to agricultural and industrial uses. The WSV confirms the Water Supply Assessment and conclusions presented in the Final EIR certified in May 2010.

Consistent with the provisions of SB 221, neither the WSV nor the approval thereof shall be construed to create a right or entitlement to water service or any specific level of water service. The WSV does not constitute a will-serve, plan of service, or agreement to provide water service to the Project, and does not entitle the Project or Project Applicant to any right, priority or allocation in any supply, capacity or facility. To receive water service, the Project will be subject to an agreement with SCWD, together with any and all applicable fees, charges, plans and specifications, conditions, and any and all other applicable SCWD requirements in place and as amended from time to time.

FINANCIAL CONSIDERATIONS

None.

RECOMMENDATION

That the Retail Operations Committee recommends that the Board of Directors adopt the attached resolution approving the SB 221 WSV for the Skyline Ranch Project (TTM 060922-1) and direct staff to forward to the County of Los Angeles Department of Public Works a copy of the Water Supply Verification.

KA

Attachments

RESOLUTION NO.

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE
CASTAIC LAKE WATER AGENCY
ADOPTING THE SB 221 WATER SUPPLY VERIFICATION
FOR SKYLINE RANCH PROJECT (TTM 060922-1)**

WHEREAS, the Santa Clarita Water Division (SCWD) is the retail division of the Castaic Lake Water Agency (CLWA), which is a public wholesale and retail water agency within the Santa Clarita Valley; and

WHEREAS, SCWD provides retail water service to portions of the City of Santa Clarita and to unincorporated portions of Los Angeles County in the communities of Saugus, Canyon Country, and Newhall; and

WHEREAS, CLWA is a "public water system" as defined by California Government Code section 66473.7(a) (3) and California Water Code section 10912 and, accordingly, SCWD, as CLWA's retail division may receive requests from time to time to prepare a Water Supply Assessment pursuant to Water Code section 10910 et seq. (commonly referred to as SB 610) and/or a Water Supply Verification pursuant to Government Code section 66473.7 (commonly referred to as SB 221); and

WHEREAS, the County of Los Angeles Department of Public Works conditioned approval of Tentative Tract Map 060922-1, referred to as the Skyline Ranch Project (Project) on obtaining a Water Supply Verification for the Project, in accordance with Government Code section 66473.7, where the County is the lead agency for the Project under the California Environmental Quality Act (CEQA) and the County is responsible for all land use decisions related to the Project; and

WHEREAS, the Project is within SCWD's service area, and therefore SCWD is the public water system to provide water service to the Project; and

WHEREAS, pursuant to a request for SCWD to provide a Water Supply Verification for the Project, SCWD has prepared a Water Supply Verification for the Project in accordance with the requirements of Government Code section 66473.7.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors of the Castaic Lake Water Agency, as the governing body of Santa Clarita Water Division, (1) has determined that all of the foregoing Recitals are true and correct and are incorporated herein and made an operative part of this Resolution; (2) has reviewed the Water Supply Verification for the Project; (3) has determined, exercising its independent judgment, that a "sufficient water supply" is available for the Project based on the requirements of Government Code section 66473.7, the information and analyses contained in the Water Supply Verification, the documentation contained in the administrative record in support of the Water Supply Verification, and other relevant records on file with SCWD and CLWA; and (4) hereby approves the Water Supply Verification for the Project, a copy of which Water Supply Verification is attached hereto and incorporated herein by reference.

RESOLVED FURTHER that the CLWA's General Manager or his designee is authorized and directed to forward a copy of the approved Water Supply Verification to the County of Los Angeles Department of Public Works, and to take any and all actions necessary in furtherance of the matters authorized or contemplated by the foregoing Resolution.

SB 221

WATER SUPPLY VERIFICATION

SKYLINE RANCH PROJECT

(TTM 060922-1)

Prepared for:

The County of Los Angeles

February 2017

Prepared by:



**Santa Clarita Water Division
Castaic Lake Water Agency
26521 Summit Circle
Santa Clarita, CA 91380
Phone: (661) 259-2737 Fax: (661) 286-4333
www.scwater.org**

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TABLE OF CONTENTS

SB 221 Water Supply Written Verification – Skyline Ranch Project

1.	Introduction.....	1
1.1.	Skyline Ranch Project.....	1
1.2.	Purpose of the Verification.....	3
1.3.	Santa Clarita Water Division.....	4
1.4.	Castaic Lake Water Agency.....	4
1.4.1.	State Water Project and Associated Facilities.....	6
1.4.2.	Buena Vista-Rosedale Program.....	7
1.4.3.	Rosedale-Rio Bravo Banking/Exchange Program.....	7
1.5.	2015 Urban Water Management Plan.....	7
2.	Water Supply Verification.....	9
2.1.	Groundwater Supplies.....	10
2.1.1.	Alluvial Aquifer.....	19
2.1.2.	Saugus Formation.....	23
2.1.3.	Existing and Planned Groundwater Pumping.....	28
2.1.4.	Written Contracts or Other Proof of Supplies.....	29
2.1.5.	Permits/Approvals or Other Necessary Regulatory Approvals.....	30
2.2.	Imported SWP Supplies.....	30
2.2.1.	Written Contracts or Other Proof of Supplies.....	38
2.2.2.	Permits/Approvals or Other Necessary Regulatory Approvals.....	38
2.2.3.	Effect of Monterey Plus EIR Litigation On SWP/CLWA Water Supplies.....	39
2.2.4.	Other Factors Affecting State Water Project Deliveries.....	40
2.3.	Dry-Year Supplies.....	44
2.3.1.	Written Contracts or Other Proof of Supplies.....	47
2.3.2.	Permits/Approvals or Other Necessary Regulatory Approvals.....	48

2.4.	Recycled Water	48
2.4.1.	Written Contracts or Other Proof of Supplies	50
2.4.2.	Permits/Approvals or Other Necessary Regulatory Approvals	50
3.	Water Demand and Supply Summary	51
3.1.	Water Demand.....	51
3.2.	Water Supplies — Historic and Existing Sources	54
3.2.1.	Current and Planned Water Supplies	56
3.2.2.	Average/Normal Year Supplies and Demand	59
3.2.3.	Single Dry-Year Supplies and Demand	62
3.2.4.	Multiple Dry-Year Supplies and Demand	66
3.2.5.	Supply and Demand Comparison	73
4.	Water Shortage Contingency Analysis	75
5.	Conclusion	77
6.	References	78

List of Tables

Table 1 – Skyline Ranch Project Water Demand Estimates.....	2
Table 2 – Groundwater Operating Plan for the Santa Clarita Valley.....	13
Table 3 – Resent Historical Groundwater Production (AF).....	15
Table 4 – Active Municipal Groundwater Source Capacity - Alluvial Aquifer Wells.....	21
Table 5 – Municipal Groundwater Source Capacity - Existing, Restored, and Planned Saugus Formation Wells.....	25
Table 6 – SWP Table A Supply Reliability (AF).....	36
Table 7 – Average and Dry-Period SWP Table A Deliveries Under Current Conditions and Resulting Deliveries to CLWA	37
Table 8 – Summary of Projected Water Demands (AF)	52
Table 9 – SCWD Current & Projected Water Deliveries by Customer Type	53

Table 10 – Total Water Supply Utilization for Municipal, Agricultural and Other Uses (Ac-Ft).....	55
Table 11 – Summary of Current and Planned Water Supplies and Banking Programs (AF).....	57
Table 12 – Projected Average/Normal Year Supplies and Demands (AF).....	60
Table 13 – Projected Single-Dry Year Supplies and Demands (AF)	63
Table 14 – Projected Four-Year Dry Period Supplies and Demands (AF)	67
Table 15 – Projected Three-Year Dry Period Supplies and Demands (AF)	70
Table 16 – Projected Average/Normal Year Supplies and Demands with Project.....	73
Table 17 – Projected Single-Dry Year Supplies and Demands with Project	73
Table 18 – Projected Four-Year Dry Period Supplies and Demands with Project.....	74
Table 19 – Projected Three-Year Dry Period Supplies and Demands with Project.....	74

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1. Introduction

This Water Supply Verification (WSV) is prepared for the Skyline Ranch subdivision (Project) by the Santa Clarita Water Division (SCWD) of Castaic Lake Water Agency (CLWA) pursuant to the requirements of Government Code section 66473.7, commonly referred to as Senate Bill 221 (Kuehl; Chapter 642, Stats. 2001) (SB 221)¹. SB 221 amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SCWD is the retail water purveyor for the Project and CLWA is the wholesale agency for the Santa Clarita Valley including the Project. Generally, SB 221 requires cities and counties to condition their approvals of tentative maps that include a "subdivision" (defined as a proposed residential development of more than 500 dwelling units) on obtaining written verification from the applicable "public water system"² that a sufficient water supply will be available to serve the proposed subdivision in addition to existing and planned future uses.

The County of Los Angeles certified an EIR in May 2010 for the Skyline Ranch Project for a 2,173 acre site of which approximately 622 acres would be developed with up to 1,260 single family residential units, public and private parks, an elementary school, and landscaped slopes. Approximately 1551 acres would be designated as open space. The Project site is located between Sierra Highway, Whites Canyon Road and Vasquez Canyon Road north of Soledad Canyon Road. The Project includes an extension of Skyline Ranch Road between Whites Canyon Road and Sierra Highway. The EIR determined, based in part on a Water Supply Assessment adopted by SCWD in accordance with Water Code section 10910 et seq. (commonly referred to as Senate Bill 610) that a sufficient water supply will be available to serve the Project during normal, single-dry, and multiple-dry years over a 20-year projection and beyond, in addition to existing and other planned uses within the SCWD service area.

Because the Skyline Ranch Project involves a tentative map that includes more than 500 residential dwelling units, the County conditioned approval of Tentative Tract Map No. 060922-1 for the Project on obtaining a WSV to show that a sufficient water supply will be available to serve the Project in accordance with the SB 221 standards. The Skyline Ranch Project site is located in the SCWD service area and, therefore, SCWD is the retail water supplier to the Project and the appropriate public water system to prepare the WSV.

1.1. Skyline Ranch Project

The County's certified Final EIR evaluated the Project for up to 1,260 residential units, public and private parks, an elementary school, and landscaped slopes. For purposes of the Final EIR, the total water demand for the Project at build-out was estimated to be approximately 1,818 acre-feet per year (afy) in an average/normal year. The Final EIR and supporting SB 610 Water Supply Assessment (WSA) determined that a sufficient water supply would be available for the

¹ SB 221, filed with Secretary of State October 9, 2001, amended Section 11010 of the Business and Professions Code and Section 65867.5 of the Government Code (Subdivision Map Act), and added Sections 66455.3 and 66473.7 to the Government Code (Subdivision Map Act).

² Under Water Code §10912(c), a "public water system" means a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections.

Project during normal, single-dry, and multiple-dry year periods over a 20-year projection, in addition to existing and other planned uses within the SCWD service area.

On December 20, 2016, the County approved an Addendum to the certified Final EIR that modified the proposed number and type of residential units for the Project, with an overall reduction in the number of dwelling units from 1,260 to 1,220 units, and a reduction in the developed area from 622 acres to 496 acres (open space was increased from 1,551 acres to 1,677 acres). As a result, the Skyline Ranch Project will include the following elements at build-out:

- 876 single family residential units – lot sizes vary from 5,000 to 6,500 square feet
- 344 multi-family condominium units
- School (approximately 12 acres)
- Landscaped slopes (approximately 178 acres)
- Public and private parks (approximate 20 acres)

Using SCWD’s water demand factors from the SCWD 2013 Water Master Plan, the total water demand for the revised Project is approximately 1,540 afy at build-out in an average/normal year. Project water demand may increase by approximately ten percent in a dry or multiple dry year period to a total of 1,694 afy. The Project water demand is summarized in Table 1 below.

Table 1
Skyline Ranch Project Water Demand Estimates

Land Use	No. of Units	Unit	Unit Factor	Estimated Water Demand (AFY)*
Single Family Residential (5,000 sq. ft. lots)	713	Dwelling Units	0.585	417
Single Family Residential (> 5,500 to 6,500 sq. ft. lots)	163	Dwelling Units	0.682	111
Multi-Family Condominiums	344	Dwelling Units	0.344	118
School	12	Acres	2.548	31
Landscaping/ Slopes	179	Acres	4.334	776
Parks	20	Acres	4.334	87
Total Estimated Water Demand (Acre-Feet/Year)				1540

*Estimates are for an average/normal year

Source: VTTM 060922-1 (11-16-2016) and SCWD 2013 Water Master Plan.

Based on this updated water demand estimate, the Skyline Ranch Project is anticipated to require less water than was originally considered and approved in the certified Final EIR and related water supply analyses for the Project.

The Project's water demand would be met by relying on SCWD's overall potable water supply portfolio, which includes imported water from the State Water Project (SWP), groundwater from the alluvial aquifer and Saugus Formation, water banking programs, and other imported exchange programs.

1.2. Purpose of the Verification

As noted above, SB 221 requires cities and counties to condition their approvals of tentative maps that include a "subdivision" (defined as a proposed residential development of more than 500 dwelling units) on obtaining written verification from the applicable "public water system" that a "sufficient water supply" will be available to serve the proposed subdivision in addition to existing and planned future uses, including but not limited to agricultural and industrial uses. (Govt. Code § 66437.7(a)-(b).) "Sufficient water supply" means the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that will meet the projected demand associated with the specified subdivision, in addition to existing and planned future uses, including, but not limited to, agricultural and industrial uses. (Govt. Code § 66437.7(a) (2).) In determining whether a sufficient water supply will be available, all of the following factors must be considered: (a) the availability of water supplies over a historical record of at least 20 years; (b) the applicability of an urban water shortage contingency analysis prepared pursuant to Section 10632 of the Water Code; (c) the reduction in water supply allocated to a specific water use sector pursuant to a resolution or ordinance adopted, or a contract entered into, by the public water system, as long as that resolution, ordinance, or contract does not conflict with Section 354 of the Water Code; and (d) the amount of water that the water supplier can reasonably rely on receiving from other water supply projects. (Govt. Code § 66437.7(a) (2) (A)-(D).)

SB 221 provides that a WSV must be based on substantial evidence, which may include, but is not limited to: (a) the water agency's most recently adopted Urban Water Management Plan; (b) a Water Supply Assessment previously prepared for the project under SB 610; and (c) information and analysis that is substantially similar to that contained in the water agency's water shortage contingency plan. (Govt. Code § 66437.7(c).) If the subdivision relies on water sources that are not currently available to the water agency, the WSV must be based, as to those sources of projected supplies, on the following elements, as applicable: written contracts or other proof of valid rights to the supply that identify the terms and condition under which the water will be available to serve the proposed subdivision; copies of capital outlay programs for delivery financing; applicable construction permits for infrastructure necessary to serve the subdivision; and any other necessary regulatory approvals. (Govt. Code § 66437.7(d).)

In addition to the above requirements, the WSV must include a description to the extent data is reasonably available, of the reasonably foreseeable impacts of the proposed subdivision on the availability of water resources for agricultural and industrial uses within the water agency's service area. (Govt. Code § 66437.7(g).)

Where the water supply for a proposed subdivision includes groundwater, the WSV also must evaluate the extent to which the water supplier and/or project applicant has the right to extract any groundwater on which the subdivision will rely. (Govt. Code § 66437.7(h).).

All of these requirements of the SB 221 statute are addressed and satisfied throughout this WSV.

1.3. Santa Clarita Water Division

SCWD is one of the four retail water agencies within the Santa Clarita Valley, serving the eastern part of the Valley. The Skyline Ranch Project site is located within SCWD's service area. SCWD is the retail water supplier for the Project.

SCWD's service area includes portions of the City of Santa Clarita and unincorporated portions of the Los Angeles County in the communities of Saugus, Canyon Country, and Newhall. SCWD's current service area includes a mix of residential and commercial land uses, mostly comprised of single-family homes, apartments, condominiums, and a number of local shopping centers and neighborhood commercial developments.

SCWD has 14 wells and approximately 30,800 service connections. SCWD also receives State Water Project (SWP) water and other imported supplies from CLWA through 13 turnouts. SCWD generally produces water using a mix of groundwater and imported water with some variation in the mix depending on peak demands and weather conditions. Recycled water is being planned for future delivery to customers for non-potable uses, such as landscape irrigation.

The groundwater basin in the Santa Clarita Valley is unadjudicated, meaning that neither SCWD nor the other purveyors have specific adjudicated water rights or strict limitations that dictate their water supply. However, in practice, SCWD produces groundwater supplies pursuant to appropriate water rights in accordance with a comprehensive groundwater operating plan developed by SCWD, CLWA and the other retail water purveyors in the Santa Clarita Valley, which is based on a numerical groundwater flow model of the basin. Groundwater supplies available to SCWD are further discussed below.

1.4. Castaic Lake Water Agency

CLWA was formed in 1962 through passage of the Castaic Lake Water Agency Law³ for the purpose of contracting with State of California, through the Department of Water Resources (DWR), to acquire and distribute imported SWP water to the water purveyors in the Santa Clarita Valley. The retail purveyors are SCWD, Los Angeles County Waterworks District No. 36, Newhall County Water District (NCWD), and Valencia Water Company (VWC).

Since 1962, subsequent legislation broadened CLWA's purpose, which now includes, but is not limited to, the following: (a) acquire water from the state; (b) distribute such water wholesale through a transmission system to be acquired or constructed by CLWA; (c) reclaim (recycle) water; (d) sell water at retail within certain boundaries; and (e) exercise other related powers.

³ California Water Code Appendix Section 103-1, 103-15.

The CLWA service area comprises approximately 195 square miles (124,800 acres) in Los Angeles and Ventura counties. CLWA serves the incorporated and unincorporated areas in, or adjacent to, the Santa Clarita Valley. Most of this area is within the geographic boundaries of Los Angeles County, but it also extends into a small portion of eastern Ventura County. The service area includes largely urban areas, such as the City of Santa Clarita, other smaller communities, and rural areas. The West Branch of the California Aqueduct terminates at Castaic Lake, in the northern portion of the service area.

CLWA operates two potable water treatment plants, storage facilities, and over 17 miles of transmission pipelines, and has initiated recycled water service. CLWA supplements local groundwater supplies with State Water Project (SWP) water and other imported supplies. This water is treated and delivered to the local retail water purveyors, including SCWD. CLWA also operates two wells in the Saugus Formation.⁴

The funding for CLWA's expansion, modification and addition to its current facilities and programs is through its Capital Improvement Program (CIP). As part of CLWA's annual budget process, the CIP is reviewed and updated as necessary. An integral part of CLWA's CIP is its facility capacity fees. These fees are a source of revenue to fund additional facilities and programs required to accommodate growth within the CLWA service area. As part of CLWA's CIP, funding has been established to provide for expansion of treatment plant capacity, the purchase of additional imported SWP supplies, implementation of recycled water programs, and groundwater banking/conjunctive-use programs both inside and outside the CLWA service area.⁵

According to CLWA, implemented over time, the various measures set forth in its CIP and UWMP provide assurance that there will be sufficient supplies to meet water demands in the CLWA service area during normal, single-dry, and multiple-dry periods over the next 20-year projection and beyond.

Historically, groundwater was the primary source of water in the Santa Clarita Valley. Since 1980, local groundwater supplies have been supplemented with imported water from the SWP. As CLWA's water use requirements increase, proportions of its SWP supplies, water-banking opportunities, water transfers, water conservation, and recycled water become important elements of CLWA's long-term water supply strategy, as further set forth in the recently adopted 2015 Urban Water Management Plan for the Santa Clarita Valley (2015 UWMP). In particular, water banking and other conjunctive use programs are essential to optimizing the reliability of CLWA's SWP supplies.

⁴ The two CLWA wells located in the Saugus Formation are currently operational. They are part of the perchlorate containment plan and water is sent offsite for perchlorate removal and then returned to the potable distribution system.

⁵ A copy of CLWA's most recent fiscal year budget and CIP, adopted by the CLWA Board on May 16, 2016 are available for public review on the CLWA website or at CLWA, and are incorporated by this reference. A copy of CLWA's most recent 2014 Facility Capacity Fee Study dated August 28, 2015 is available at CLWA for public review.

As discussed in greater detail below, CLWA participates in groundwater banking and exchange programs with the Semitropic Water Storage District (Semitropic) and the Rosedale-Rio Bravo Water Storage District (RRB) in Kern County⁶.

CLWA has entered into four groundwater banking and water exchange programs and has, in aggregate, more than 140,000 af of recoverable water storage outside the local groundwater basin (2015 Santa Clarita Valley Water Report⁷ and 2015 UWMP⁸). Adequate planning for, and the procurement of, a reliable water supply is a fundamental function of CLWA and the local retail purveyors. CLWA obtains its water supply for wholesale purposes principally from the SWP and has a water supply contract with DWR for 95,200 AFY of SWP Table A Amount. "Table A" is a term used in SWP water supply contracts. The "Table A Amount" is the annual maximum amount of water to which a SWP Contractor has a contractual right to request delivery, and is specified in Table A of each SWP Contractor's water supply contract. As further discussed below, the amount of water actually available for delivery in any year may be an amount less than the SWP Contractor's Table A Amount, depending upon hydrologic conditions, the amount of water in storage, the operational constraints and requirements imposed by regulatory agencies to meet environmental water needs, the amount of water requested by other SWP contractors, climatic conditions, and other factors.

CLWA's original SWP water supply contract with DWR was amended in 1966 for a maximum annual Table A amount of 41,500 AFY. In 1991, CLWA purchased an additional 12,700 AFY of annual Table A Amount from a Kern County water district. In March 1999, CLWA purchased another 41,000 AFY of annual Table A Amount from Kern County water agencies (Kern County Water Agency and Wheeler Ridge-Maricopa Water Storage District) by way of an amendment to its water supply contract.

CLWA and the local retail purveyors have evaluated the long-term water needs (water demand) within their service areas based on applicable population data and county and city plans, and have compared these needs against total existing and projected water supplies. The 2015 UWMP comprehensively addresses water supply and demand forecasts for the CLWA service area in accordance with the requirements of the Urban Water Management Planning Act (UWMP Act) and the Water Conservation Act of 2009, commonly referred to as SBx7-7.

1.4.1. State Water Project and Associated Facilities

The SWP is a water supply, storage, and distribution system that includes 28 storage facilities, reservoirs, and lakes; 20 pumping plants; six pumping-generating plants and hydroelectric power plants; and about 660 miles of aqueducts and pipelines.⁹

⁶ Banking agreements and point of delivery contracts related to CLWA's groundwater banking and exchange programs with Semitropic and RRB are incorporated by reference.

⁷ Luhdorff and Scalmanini, June 2016

⁸ 2015 UWMP Section 3.5

⁹ DWR. 2001. *Bulletin 132-00: Management of the California State Water Project*. December 2001.

In the southern Sacramento-San Joaquin Delta (Delta), water is pumped into the 444-mile-long California Aqueduct at the Clifton Court Forebay by the Banks Pumping Plant (or by agreement with the U.S. Bureau of Reclamation, at the Central Valley Project's (CVP) Tracy Pumping Plant). SWP water exports for users south of the Banks and Tracy pumping plants are currently limited by a series of water quality and operational constraints, including those set forth in SWRCB Water Right Decision 1641 (D-1641), as amended. As further discussed below, coordinated operations of the SWP and CVP are now also subject to and operated in accordance with Biological Opinions issued by the United States National Marine Fisheries Service and the United States Fish and Wildlife Service.

From the southern Delta facilities, water in the California Aqueduct travels along the west side of the San Joaquin Valley and is delivered directly to SWP contractors or is stored in San Luis Reservoir, the SWP's main storage facility south of the Delta. Water is conveyed via the California Aqueduct to the Bay area, the San Joaquin Valley, and regions of the Central Coast and southern California. From the San Joaquin Valley, the Edmonston Pumping Plant pumps water over the Tehachapi Mountain Range, and the California Aqueduct then divides into the East Branch and the West Branch. Water delivered for use by CLWA is conveyed through the West Branch to Quail and Pyramid Lakes and then to Castaic Lake, the terminus for the West Branch.

1.4.2. Buena Vista-Rosedale Program

The Buena Vista Water Storage District and the Rosedale-Rio Bravo Water Storage District, both member districts of KCWA, have jointly developed a program that provides both a firm water supply and a water banking component based on existing and long-standing Kern River water rights, which can be delivered by exchange of SWP Table A supplies. In years when the annual supply from this program is not needed, it can be banked for withdrawal and delivery in later years.

1.4.3. Rosedale-Rio Bravo Banking/Exchange Program

The Rosedale-Rio Bravo Water Storage District also has developed a water banking and exchange program. Withdrawals from the program can be made by exchange of Rosedale-Rio Bravo Water Storage District's Table A supply, or by pump-back into the California Aqueduct.

1.5. 2015 Urban Water Management Plan

As discussed above, SB 221 requires the WSV to verify based on substantial evidence that the water supplier will have sufficient water to meet demands of the proposed subdivision, plus existing and planned future uses for a 20-year horizon, including but not limited to agricultural and industrial uses. (Govt. Code § 66473.7(b), (c).) Also noted above, Government Code section 66473.7(c) states that the substantial evidence may include the water supplier's most recently adopted UWMP. In June 2016, CLWA and the retail water purveyors (SCWD, NCWD, and VWC) approved a regional 2015 UWMP for the Valley in accordance with the UWMP Act and SBx7-7 and submitted it to DWR.

The 2015 UWMP contains information based on a compilation of data collected from various water resource documents, studies, and reports listed in the 2015 UWMP and in the References section of this WSV. The 2015 UWMP includes the following eight major sections:

- ◆ Introduction (Section 1)
- ◆ Water Use (Section 2)
- ◆ Water Resources (Section 3)
- ◆ Recycled Water (Section 4)
- ◆ Water Quality (Section 5)
- ◆ Reliability Planning (Section 6)
- ◆ Water Demand Management Measures (Section 7)
- ◆ Water Shortage Contingency Planning (Section 8)

Importantly, the water demands associated with the proposed Skyline Ranch Project were included by SCWD in the water demand projections contained in the 2015 UWMP (see, Table 2-2 and 2-5 of the 2015 UWMP); and, therefore, the anticipated water demand for the Project is specifically accounted for in the 2015 UWMP. As described above, the County certified an EIR for the Project in May 2010, which was based in part on a Water Supply Assessment prepared and adopted by SCWD in accordance with SB 610 which concluded that its total projected water supplies were sufficient to serve the proposed Project in addition to existing and planned future uses. Because the Project as approved in 2010 has been accounted for in the 2015 UWMP, the Project demand is already part of SCWD's "planned future uses." Pursuant to Government Code section 66437.7, this WSV uses the data, analyses, and conclusions in the 2015 UWMP in part to verify that the total water supplies available to SCWD during normal, single-dry, and multiple-dry years over the next 20-year projection and beyond will be sufficient to meet the projected water demands of the Project, in addition to (or as part of) SCWD's existing and planned future uses, including but not limited to agricultural and industrial demands. While not required, the 2015 UWMP and this SB 221 WSV include an assessment of two different multiple-dry year periods: a four-year dry period, and a three-year dry period. In addition, and as set forth below, this WSV utilizes and in part relies upon information, analyses, and conclusions from numerous other water resource and planning documents, studies, and reports listed in Section 5.0, References, below.

2. Water Supply Verification

Documentation of the availability of both existing and projected water supplies in the Santa Clarita Valley is discussed below.

The water supplies available to serve the Santa Clarita Valley as a whole are derived from five sources:

- ◆ Groundwater from the Alluvial aquifer
- ◆ Groundwater from the Saugus Formation
- ◆ Imported SWP water and other imported supplies
- ◆ Dry-year groundwater banking programs
- ◆ Recycled water

Within the CLWA service area, these water supply sources can be characterized as: (a) local supplies, consisting of groundwater and recycled water; and (b) imported supplies, transported via the SWP and consisting of SWP contract amounts and dry-year supplies delivered from groundwater banking programs. In accordance with SB 221 (Govt. Code § 66473.7(a) (2)), information contained in the 2015 UWMP, Section 2, and the 2015 Santa Clarita Valley Water Report, Section 2, are used to summarize the quantities of water used by each of the water purveyors in the Santa Clarita Valley to meet water demands since importation of SWP water began in the Santa Clarita Valley in 1980.

Demand-side management programs (conservation) also are considered an important component of the Valley's approach to water supply. The conservation efforts of CLWA, SCWD, and the other retail purveyors are important in reducing regional and local water demands on a near and long-term basis.

Potential future water sources include acquisition of additional imported water supplies, recycled water, storm water runoff, increased short-term pumping from the Saugus Formation during dry years, and additional groundwater banking programs¹⁰.

Consistent with Government Code section 66473.7(a) (2) (C), information from the 2015 UWMP, Section 8, is relied upon herein as the water shortage contingency planning analysis that describes how CLWA, SCWD, and other retail purveyors plan to respond to potential interruptions or significant reductions in water supply due to regional catastrophic emergencies (e.g., earthquake damage to water delivery or storage facilities, power outages, sustained droughts, etc.) and drought management. The analysis demonstrates that CLWA and the retail purveyors have planned for such emergencies through their water storage contingency plans, mandatory prohibitions during water shortages, consumption reduction methods by customer type, penalties for excessive water usage, and management of financial impacts to CLWA and the retail purveyors during water shortages.

¹⁰ See Section 3-Water Resources, of the 2015 UWMP for more discussion about current and future water sources.

As set forth in this WSV, the provision of water to the Skyline Ranch Project will not impact the availability of water resources for agricultural or industrial uses within SCWD's service area due to the overall adequacy of SCWD's water supplies to serve the projected demands of the proposed Project in addition to SCWD's other existing and planned future uses, including agricultural and industrial uses. (Govt. Code § 66473.7(g).)

Specifically, the provision of water to the Skyline Ranch Project will not impact the availability of water resources for agricultural uses within SCWD's service area because there are no known agricultural uses within the SCWD service area. In addition, all agricultural and other uses and the water supplies projected to serve those uses were accounted for in the 2015 UWMP, and have been analyzed through various modeling efforts that support the 2015 UWMP and demonstrate groundwater sustainability in the Santa Clarita Valley.

2.1. Groundwater Supplies

The primary source of water supplies for the Santa Clarita Valley historically has been groundwater pumped from the Alluvial Aquifer and the underlying Saugus Formation. This groundwater basin, generally beneath the Santa Clarita Valley, is identified in DWR's Bulletin 118¹¹ as the Santa Clara River Valley Groundwater Basin, East Subbasin (Basin No. 4-4.07). DWR has not identified this basin as overdrafted or subject to critical conditions of overdraft, and has not projected that the basin will become overdrafted if present management conditions continue. (Govt. Code § 66473.7(a) (2) (E).)

As stated above, the groundwater basin is unadjudicated. In practice, SCWD accesses the available groundwater supplies pursuant to its appropriative water rights in accordance with a groundwater operating plan developed by CLWA and other retail water purveyors in the Santa Clarita Valley, and complemented by analyses based on a numerical groundwater flow model of the basin.

Operating experience over the past 50 years has shown that pumping from the Alluvium in the range of 30,000 to 40,000 AFY can be sustained without any long-term adverse effects on groundwater levels or storage. Modeled projections of alluvial groundwater response to the same range of pumping over a 78-year period of representative local hydrologic conditions (precipitation, streamflow, etc.) also show that such pumping can be sustained without any long-term adverse effects. Modeled projections of Saugus Formation response to pumping in the range of 7,500 to 15,000 AFY in most years, infrequently increased to 15,000 AF or 35,000 AF in multiple dry years, the latter to partially offset anticipated decreases in deliveries of imported water in such dry years, show that such pumping will cause short-term localized drawdown of groundwater levels during higher dry-year pumping, but that the basin will rapidly recover (recharge) during periods of normal (7,500 to 15,000 AFY) pumping.

Based on the combination of historical experience and modeled basin conditions, the operating plan for the local groundwater supply is to operate Alluvial pumping in the 30,000 to 40,000 AFY range through average/normal conditions. In recognition of local conditions that reduce well yields in the eastern end of the Alluvium during dry conditions, the operating plan for the Alluvium includes reducing pumping into the range of 30,000 to 35,000 AFY in dry periods.

¹¹ DWR. October 2003.

The operating plan for the Saugus Formation is primarily to retain its significant storage for intermittent dry year supply; thus, the long-term operating plan is to retain pumping in the 7,500 AFY to 15,000 AFY range for most years, with increased pumping to 15,000 AF in a single dry year, further increased to 25,000 AFY or 35,000 AFY when dry conditions continue through multiple dry years.

As provided herein, multiple studies based on long-term historic pumping records and groundwater modeling data show that the groundwater basin's yield allows pumping to vary from year-to-year within operational ranges. This operational yield allows for increased groundwater use in dry periods and increased recharge during locally wet periods, thereby collectively assuring that the basin is adequately replenished through various wet/dry cycles.

Initial analyses and reports supporting the basin yield were completed by Richard C. Slade, a consulting engineer with expertise in groundwater hydrology. In 2002, Slade completed the 2001 Update report,¹² which updated the analysis of the hydro-geologic conditions of the Alluvial and Saugus Formation aquifer systems from his earlier reports.¹³ The 2001 Update report included the following findings relative to groundwater supply:

- ◆ Analysis of historical groundwater levels and production indicates that there have been no conditions that would be illustrative of groundwater overdraft;
- ◆ The utilization of operational yield (as opposed to perennial yield) as a basis for managing groundwater production would be more applicable in this basin to reflect the fluctuating utilization of groundwater in conjunction with imported SWP water;
- ◆ The operational yield of the Alluvium would typically be 30,000 to 40,000 AFY for wet and normal rainfall years, with an expected reduction into the range of 30,000 to 35,000 AFY in dry years; and
- ◆ The operational yield of the Saugus Formation would typically be in the range of 7,500 to 15,000 AFY on a long-term basis, with possible short-term increases during dry periods into a range of 15,000 to 25,000 AFY, and to 35,000 AFY if dry conditions continue.

Groundwater Operating Plan

As noted above, neither SCWD nor the other purveyors have specific adjudicated groundwater rights or particular limitations that dictate the amount of groundwater they respectively can produce from the basin. However, in practice, as discussed herein, SCWD accesses the available groundwater supplies pursuant to its appropriative rights and in accordance with a groundwater operating plan developed by SCWD, CLWA, and other retail water purveyors in the Santa Clarita Valley, which is supported by a numerical groundwater flow model of the basin.

The groundwater operating plan was developed by CLWA and the retail purveyors over the past 15 years to meet water demands (municipal, agricultural, and small domestic), while maintaining the basin in a sustainable condition (e.g., no long-term depletion of groundwater or interrelated surface water).

¹² Slade 2002.

¹³ Slade 1986 (Alluvium); Slade 1988 (Saugus Formation).

As stated, the groundwater operating plan is based on the concept that pumping can vary from year-to-year to allow increased groundwater use in dry periods and increased recharge during wet periods. This assures that the groundwater basin is adequately replenished through various wet/dry cycles. The operating yield parameters have been quantified as ranges of annual pumping volumes to capture year-to-year pumping fluctuations in response to both hydrologic conditions and customer demand.

The on-going work of the groundwater operating plan has produced three important reports. The first report, dated April 2004, documents the construction and calibration of the groundwater flow model for the Santa Clarita Valley.¹⁴ The second report, dated August 2005, presents the modeling analysis of the CLWA/retail water purveyor groundwater operating plan for the Valley, and concludes that the plan will not cause detrimental short or long-term effects to the groundwater and surface water resources in the Valley and, therefore, the plan is a reliable, sustainable component of water supply for the Valley.¹⁵ The most recent report¹⁶, an updated analysis of the basin presents the modeling analysis of the current groundwater operating plan, including restoration of contaminated wells for municipal supply after treatment and also presents a range of potential impacts deriving from climate change considerations. All those results are reflected in the 2015 UWMP. The analysis of sustainability for groundwater and interrelated surface water is described further in Appendix C to the 2015 UWMP. The primary conclusion of the modeling analysis is that the groundwater operating plan will not cause detrimental short or long term effects to the groundwater and surface water resources in the Valley and is therefore sustainable. The analysis of sustainability for groundwater and interrelated surface water is described in detail in "Analysis of Groundwater Supplies and Groundwater Basin Yield, Upper Santa Clara River Groundwater Basin, East Sub-basin," prepared by Luhdorff and Scalmanini, Consulting Engineers and GSI Water Solutions, Inc. August 2009 (Basin Yield Analysis, 2009)

The Santa Clarita Valley's groundwater operating plan is summarized below in Table 2, Groundwater Operating Plan for the Santa Clarita Valley. The plan addresses both the Alluvium and Saugus Formation.

¹⁴ CH2MHill, April 2004 & CH2MHill, August 2005.

¹⁵ CH2MHill, et al., August 2005.

¹⁶ Luhdorff and Scalmanini, et al. 2009.

**Table 2
Groundwater Operating Plan for the Santa Clarita Valley**

Aquifer	Groundwater Production (AF)			
	Normal Years	Dry Year 1	Dry Year 2	Dry Year 3
Alluvium	30,000 to 40,000	30,000 to 35,000	30,000 to 35,000	30,000 to 35,000
Saugus	7,500 to 15,000	15,000 to 25,000	21,000 to 25,000	21,000 to 35,000
Total	37,500 to 55,000	45,000 to 60,000	51,000 to 60,000	51,000 to 70,000

Source: 2009 Basin Yield Update, 2015 UWMP (Table 3-5), 2015 Santa Clarita Valley Water Report¹⁷.

The operating plan for the alluvial aquifer involves pumping in a given year, based on local hydrologic conditions in the eastern Santa Clara River watershed. Pumping ranges between 30,000 and 40,000 AFY during normal/average and above-normal rainfall years. However, due to hydro-geologic constraints in the eastern part of the basin, pumping is reduced to between 30,000 and 35,000 AFY after the first dry year and the multiple locally-dry years thereafter.

The total (municipal and agricultural) groundwater pumping amounts for the alluvial aquifer presented in Table 3, Recent Historical Groundwater Production, slightly exceed the Operating Plan ranges for pumping in normal and dry years from 2010 through 2014. However, closer examination of the data indicates that the municipal component of alluvial pumping has been consistent with the Operating Plan for normal years (2011 and 2012 with an average of about 25,890 AF compared to 25,850 AF that was simulated for the normal year Operating Plan in the 2009 Basin Yield Report) and dry years (2013, 2014, and 2015 with an average of about 19,333 AF compared to 23,025 AF that was simulated for the dry year Operating Plan in the 2009 Basin Yield Report). The inclusion of alluvial pumping by agriculture and private pumpers, however, has resulted in alluvial pumping that slightly exceeded the upper end of the Operating Plan range by about 1,000 to 2,000 AF from 2011 through 2014. The slight exceedance in the Operating Plan range, however, has not impacted the sustainable use of alluvial groundwater in the basin because the exceedance in alluvial pumping by agriculture is in the western portion of the basin where the alluvial aquifer is able to sustain higher levels of groundwater pumping without exhibiting any long term adverse impacts on groundwater levels. It is anticipated that pumping from the alluvial aquifer for agricultural purposes will decline over time to be more consistent with Operating Plan estimates¹⁸.

The operating plan for the Saugus Formation involves pumping in a given year and is tied directly to the availability of other water supplies, particularly from the SWP. During average/normal year conditions within the SWP system, Saugus pumping ranges between 7,500 and 15,000 AFY. Planned dry-year pumping ranges between 15,000 and 25,000 AFY during a drought year and can increase to between 21,000 and 25,000 AFY if SWP deliveries are reduced for two consecutive years and between 21,000 and 35,000 AFY if SWP deliveries are reduced for three consecutive years.

¹⁷ Luhdorff and Scalmanini. June 2015.

¹⁸ Refer to 2015 UWMP Table 3-7 for project groundwater production in an average/normal year.

Such pumping is followed by periods of reduced (average-year) pumping, at rates between 7,500 and 15,000 AFY, to further enhance the effectiveness of natural recharge processes that cause groundwater levels and storage volumes to recover after the higher pumping during dry years.

Table 3
Recent Historical Groundwater Production (AF) ^(a)

Santa Clara River Valley East Subbasin	2011	2012	2013	2014	2015
SCWD	12,979	13,148	10,370	6,723	7,558
Alluvium	10,195	10,192	7,262	4,220	4,597
Saugus Formation ^(b)	2,784	2,956	3,108	2,503	2,961
LACWWD 36	0	794	811	1238	973
Alluvium	0	0	0	0	0
Saugus Formation	0	794	811	1238	973
NCWD	7,605	6,712	5,240	5,232	4,828
Alluvium	3,216	2,631	1,405	1,383	1,131
Saugus Formation	4,389	4,081	3,835	3,849	3,697
VWC	13,040	13,072	13,358	21,419	16,534
Alluvium	12,775	12,770	12,764	19,080	13,605
Saugus Formation	265	302	594	2,339	2,929
Total Purveyor	33,624	33,726	29,779	34,612	29,893
Alluvium	26,186	25,593	21,431	24,683	19,333
Saugus Formation	7,438	8,133	8,348	9,929	10,560
Agricultural and Other^(c)	15,550	16,032	16,151	12,885	12,079
Alluvium	14,562	15,108	15,461	12,213	11,359
Saugus Formation	988	924	690	672	720
Total Basin	49,174	49,758	45,930	47,497	41,972
Alluvium	40,748	40,701	36,892	36,896	30,692
Saugus Formation	8,426	9,057	9,038	10,601	11,280
Groundwater Fraction of Total Municipal Water Supply	52%	48%	41%	51%	55%

Source: 2015 UWMP, Table 3-6

Notes:

- (a) From 2014 Santa Clarita Valley Water Report (June 2015) and recorded amounts for 2015.
- (b) Represents pumping from Saugus 1 and Saugus 2 wells.
- (c) Includes agricultural and other small private well pumping.

Groundwater Management Plan

In 2001, as part of legislation authorizing CLWA to provide retail water service to individual municipal customers, Assembly Bill (AB) 134 included a requirement that CLWA prepare a groundwater management plan in accordance with the provisions of Water Code Section 10753.

CLWA adopted the Groundwater Management Plan on December 10, 2003. This Plan contains the following four management objectives and goals for the basin: (1) development of an integrated surface water, groundwater and recycled water supply to meet existing and projected demands for municipal, agricultural and other water uses; (2) assessment of Basin conditions to determine a range of operational yield values that use local groundwater conjunctively with supplemental SWP supplies and recycled water to avoid groundwater overdraft; (3) preservation of groundwater quality, and active characterization and resolution of groundwater contamination

problems, including perchlorate; and (4) preservation of interrelated surface water resources, which includes managing groundwater in a manner that does not adversely impact surface and groundwater discharges or quality to downstream basins.

Prior to preparation and adoption of the Groundwater Management Plan, a local Memorandum of Understanding (MOU) process among CLWA, the purveyors, and United Water Conservation District (UWCD) in neighboring Ventura County had produced the beginning of local groundwater management, now embodied in the Groundwater Management Plan. In 2001, those agencies prepared and executed the MOU. The MOU is a collaborative and integrated approach to several of the aspects of water resource management included in the Groundwater Management Plan. UWCD manages surface water and groundwater resources in seven groundwater basins, all located in Ventura County, downstream of the Basin. As a result of the MOU, the cooperating agencies have undertaken the following measures: (1) integrated their database management efforts; (2) developed and utilized a numerical groundwater flow model for analysis of groundwater basin yield and containment of groundwater contamination; and (3) continued to monitor and report on the status of basin conditions, as well as on geologic and hydrologic aspects of the overall stream-aquifer system.

The adopted Groundwater Management Plan includes 14 elements intended to accomplish the basin management objectives listed above. In summary, the plan elements are:

- ◆ Monitoring of groundwater levels, quality, production and subsidence
- ◆ Monitoring and management of surface water flows and quality
- ◆ Determination of basin yield and avoidance of overdraft
- ◆ Development of regular and dry-year emergency water supply
- ◆ Continuation of conjunctive use operations
- ◆ Long-term salinity management
- ◆ Integration of recycled water
- ◆ Identification and mitigation of soil and groundwater contamination, including involvement with other local agencies in investigation, cleanup, and closure
- ◆ Development and continuation of local, state and federal agency relationships
- ◆ Groundwater management reports
- ◆ Continuation of public education and water conservation programs
- ◆ Identification and management of recharge areas and wellhead protection areas
- ◆ Identification of well construction, abandonment, and destruction policies
- ◆ Provisions to update the groundwater management plan

Work on a number of the plan elements had been on-going for some time prior to its adoption. This work continues on an on-going basis. An important aspect of this work was completion of the 2005 Basin Yield Report¹⁹. The primary determinations made in that report were that: (1) both the Alluvial aquifer and the Saugus Formation are sustainable sources at production levels outlined in the operational plan; (2) the yields are not overstated and will not deplete or “dry up” the groundwater basin; and (3) there is no need to reduce the yields shown in the prior UWMP. Additionally, the 2005 Basin Yield Report concluded that neither the Alluvial aquifer nor the Saugus Formation is in an overdraft condition, or projected to become over-drafted.

Basin Yield Update

In 2004, CLWA and the purveyors assisted in developing a numerical groundwater flow model for use in analyzing the response of the groundwater basin to long-term operation at the operational yields used in the earlier 2000 UWMP. That groundwater flow model was used in 2005 to analyze the sustainability of groundwater supplies in both the Alluvium and the Saugus Formation, utilizing a long-term (78 year) hydrologic period. The model used this period to examine groundwater basin response to variations in groundwater pumping. The pumping variations used in the modeling were based on the CLWA/purveyor groundwater operating plan.

Utilizing the pumping ranges reflected in the groundwater operating plan, the model projections of groundwater levels, groundwater storage, and surface water flows show the basin to respond in a long-term sustainable manner, with no chronic depletion of groundwater levels, storage, or stream flows.

The analysis of groundwater sustainability was summarized in the 2005 Basin Yield Report, which included the following findings:

- ◆ The groundwater basin historically has been, and continues to be, in good operating condition (and not in a state of overdraft), based on the best available data.
- ◆ The CLWA/purveyor groundwater operating plan is sustainable over varying hydrologic conditions because it is feasible to intermittently exceed a long-term average yield for one or more years without creating long-term adverse impacts to the groundwater aquifer system or the Santa Clara River.
- ◆ The CLWA/purveyor groundwater operating plan for the Alluvium and the Saugus Formation can be used for long-term water supply purposes. In particular, although increased pumping from the Saugus Formation during dry periods can be expected to cause short-term declines in groundwater levels, it is not projected to cause permanent declines in groundwater discharges or stream flow and Saugus groundwater levels can be expected to recover to pre-drought conditions when pumping is reduced in subsequent wet to normal years.
- ◆ The strategy around which the CLWA/purveyor groundwater operating plan was designed is viable on a long-term basis (*i.e.*, maximize the use of the Alluvial aquifer and imported water during years of average or above-average availability of these supplies, and limit use of the Saugus Formation during these periods, then temporarily increase

¹⁹ CH2MHill et al. August 2005.

Saugus pumping during years when SWP supplies are significantly reduced because of dry-year conditions).

- ◆ The historical observations of basin conditions and the model simulations together support the historical and ongoing confidence that groundwater can continue to be a sustainable source of water supply under the CLWA/purveyor groundwater operating plan.

In April 2009, the purveyors in Santa Clarita Valley determined that an updated analysis was needed to further assess groundwater development potential and possible augmentation of the CLWA/purveyor groundwater operating plan, partly in preparation for the 2010 UWMP, and partly in response to factors potentially affecting future SWP delivery reliability. As a result, the 2009 Basin Yield Update was completed.

The primary objective of the 2009 Basin Yield Update was to evaluate the planned utilization of groundwater by the Santa Clarita Valley purveyors, while considering potential impacts on traditional supplemental water supplies from the SWP, and recognizing ongoing pumping by others for agricultural and other private water supply. This objective also included the sustainability of the groundwater resources and the physical ability to extract groundwater at desired rates. Another objective of the 2009 Basin Yield Update was to investigate and describe potential impacts of expected climate change on the groundwater basin and its yield.

The 2009 Basin Yield Update analyzed, with the numerical groundwater flow model, two groundwater operating plans: (a) 2008 Operating Plan to reflect currently envisioned pumping rates and distribution throughout the Valley, including fluctuations through wet/normal and dry years, to achieve a desired amount of water supply that, in combination with anticipated supplemental water supplies, can meet existing and projected water demands in the Valley; and (b) potential Operating Plan that envisions potentially increased utilization of groundwater during both wet/normal and dry years.

The 2009 Basin Yield Update determined that the 2008 Operating Plan would not cause detrimental short- or long-term effects to the groundwater and surface water resources in the Valley and, therefore, is sustainable. Consistent with actual operating experience and empirical observations of historical basin response to groundwater pumping, the modeling analysis indicated that the 2008 Operating Plan would be expected to have local difficulty in achieving the amount of Alluvial pumping called for in the eastern end of the basin during locally dry periods. This condition is particularly evident if several decades of predominantly below-normal rainfall years were to occur in the future such as occurred during much of the five decades from the mid-1920s through the mid-1970s. In other words, while the basin as a whole can sustain the pumping encompassed in the 2008 Operating Plan, local conditions in the Alluvium in the eastern end of the basin can be expected to repeat historical groundwater level declines during dry periods, necessitating a reduction in desired Alluvial aquifer pumping due to decreased well yield and associated actual pumping capacity. The modeling analysis also indicated that reductions in pumping from the Alluvial aquifer can be made up by redistributing pumping in an equivalent amount in other parts of the basin without disrupting basin-wide sustainability or local pumping capacity. For the Saugus Formation, the modeling analysis indicated that the aquifer can sustain the pumping encompassed in the 2008 Operating Plan.

Model simulations were conducted to validate alluvial aquifer pumping redistribution assumptions. Model simulations of the 2008 Operating Plan, with pumping redistribution, indicate that westerly redistribution of 1,600 AFY of Alluvial pumping from the eastern end of the basin would help during dry conditions. The model simulation also showed that affected pumping in the east end of the basin, about 4,500 AFY, could be redistributed to other areas of the basin with minimal impact on groundwater levels. In this case, total Alluvial pumping in the basin could remain near the upper end of the 2008 Operating Plan range of 30,000 to 35,000 AFY. Conversely, absent any additional efforts to redistribute pumping, the total Alluvial pumping capacity during extended dry periods would likely fall toward the lower end of the 2008 Operating Plan range (toward 30,000 AFY).

In summary, based on the combination of historical experience and modeled basin conditions, the groundwater operating plan for the local groundwater supply is to operate Alluvial pumping in the 30,000 to 40,000 AFY range through average/normal water year conditions. In recognition of local conditions that reduce well yields in the eastern end of the Alluvium during dry conditions, the groundwater operating plan for the Alluvium includes reducing pumping into the range of 30,000 to 35,000 AFY in dry periods. The operating plan for the Saugus Formation is primarily to retain its significant storage for intermittent dry year supply; thus, the long-term operating plan is to retain pumping in the 7,500 AFY to 11,000 AFY range for most years, with increased pumping to 15,000 AFY in a single dry year, further increased to 25,000 AFY or 35,000 AFY when dry conditions continue through multiple dry years.

Factors Affecting Availability of Groundwater Supplies

Three primary factors affect the availability of groundwater supplies under the groundwater operating plan. They are: (1) sufficient source capacity (wells and pumps); (2) sustainability of the groundwater resource to meet pumping demand on a renewable basis; and (3) addressing impacted well capacity from known contamination, or provisions for treatment in the event of contamination. All three factors are discussed below, and are addressed in further detail in the 2015 UWMP, Section 5, Water Quality, and 2015 UWMP Appendix C.

2.1.1. Alluvial Aquifer

Based on a combination of historical operating experience and updated groundwater modeling analyses, the Alluvial aquifer can supply groundwater on a long-term sustainable basis in the overall range of 30,000 to 40,000 AFY, with a probable reduction in dry years to a range of 30,000 to 35,000 AFY. Both of those ranges include about 15,000 AFY of Alluvial pumping for current agricultural and other non-municipal water uses. The dry year reduction is a result of practical constraints in the eastern part of the basin, where lowered groundwater levels in dry periods have the effect of reducing pumping capacities in that shallower portion of the aquifer. Over time, directly related to the rate of urban development and corresponding decrease in agricultural land use, the amount of Alluvial pumping for agricultural water supply is expected to decrease, with an equivalent increase in the amount of Alluvial pumping for municipal water supply. On an overall basis, Alluvial pumping is intended to remain within the sustainable ranges in the groundwater operating plan.

Adequacy of Well Capacity and Supply

For municipal water supply, the three retail water purveyors with Alluvial wells (NCWD, SCWD, and VWC) have a combined pumping capacity from active wells of nearly 42,000 gallons per minute (gpm), which translates into a current full-time Alluvial source capacity of approximately 67,000 AFY. Alluvial pumping capacity from all the active municipal supply wells is summarized in Table 4, Active Municipal Groundwater Source Capacity — Alluvial Aquifer Wells.

In terms of adequacy and availability, the combined active Alluvial groundwater source capacity of municipal wells, approximately 67,000 AFY, is more than sufficient to meet the current and potential future municipal, or urban, component of groundwater supply from the Alluvium, which in the near term is about 26,000 AFY of the total planned Alluvial pumping of 38,600 AFY which is within the 30,000 to 40,000 AFY operating yield. The higher individual and cumulative pumping capacities are primarily for operational reasons (i.e., to meet daily and other fluctuations from average day to maximum day and peak hour system demands. The balance of Alluvial pumping in the operating plan is for agricultural and other non-municipal uses including small, private pumping.

**Table 4
Active Municipal Groundwater Source Capacity - Alluvial Aquifer Wells**

Well	Pump Capacity (gpm)	Max. Annual Capacity (AF)	Simulated Basin Yield Analysis Usage ^(a)	
			Normal Year (AF)	Dry Year (AF)
NCWD				
Castaic 1	650	1,040	350	250
Castaic 2	450	720	100	100
Castaic 4	270	430	100	0
Castaic 7	1,450	2,330	300	200
Pinetree 1	300	480	150	0
Pinetree 3	550	880	350	300
Pinetree 4	400	640	300	200
Pinetree 5	550	880	300	200
<i>NCWD Subtotal</i>	<i>4,620</i>	<i>7,400</i>	<i>1,950</i>	<i>1,250</i>
SCWD				
Clark	600	960	700	700
Guida	1,000	1,610	1,300	1,200
Honby	950	1,530	1,000	700
Lost Canyon 2	850	1,370	300	0
Lost Canyon 2A	825	1,330	300	0
Mitchell 5A	950	1,530	500	200
Mitchell 5B	700	1,120	800	300
N. Oaks Central	1,275	2,050	850	700
N. Oaks East	950	1,530	800	700
N. Oaks West	1,300	2,290	800	700
Sand Canyon	1,050	1,690	200	0
Santa Clara	1,500	2,420	1,200	1,200
Sierra	1,500	2,420	1,100	700
Valley Center	1,200	1,930	1,200	1,200
<i>SCWD Subtotal</i>	<i>14,650</i>	<i>23,780</i>	<i>11,050</i>	<i>8,300</i>
VWC^(b)				
Well D	1,050	1,690	880	880
Well E-15	1,400	2,250	800	800
Well N	1,250	2,010	650	650
Well N7	2,500	4,030	1,160	1,160
Well N8	2,500	4,030	1,160	1,160
Well Q2	1,200	1,930	1,100	1,100
Well S6	2,000	3,220	1,000	1,000
Well S7	2,000	3,220	500	500
Well S8	2,000	3,220	500	500
Well T7	1,200	1,930	750	750
Well U4	1,000	1,610	800	800
Well U6	1,250	2,010	800	800
Well W9	800	1,290	1,000	1,000
Well W10	1,500	2,420	800	800
Well W11	1,000	1,610	950	950
<i>VWC Subtotal</i>	<i>22,650</i>	<i>36,470</i>	<i>12,850</i>	<i>12,850</i>
Total Purveyors	41,920	67,650	25,850	22,400

Source: 2015 UWMP, Table 3-8

Notes:

(a) Usage amounts are simulated results from the updated Basin Yield analysis (LSCE & GSI, 2009) for Purveyors' existing wells.

(b) Does not include new or improved wells that may be required to accommodate the planned shift of pumping from existing agricultural use to municipal use.

Sustainability

Until 2003, the long-term renewability of alluvial groundwater was empirically determined based on approximately 60 years of pumping and groundwater level records. Generally, those long-term observations show stability in groundwater levels and storage, with some dry-period fluctuations in the eastern part of the basin. As discussed above, those empirical observations have been complemented by the development and application of a numerical groundwater flow model, which was used to simulate aquifer response to the planned operating ranges of pumping.

To examine the yield of the Alluvium, or the sustainability of the Alluvium on a renewable basis, the original groundwater flow model was used to examine the long-term projected response of the aquifer to pumping for municipal and agricultural uses in the 30,000 to 40,000 AFY range under average/normal conditions and in the 30,000 to 35,000 AFY range under locally dry conditions, as documented in the 2005 Basin Yield Report.

To examine the response of the entire aquifer system, the original model also incorporated pumping from the Saugus Formation in accordance with the normal (7,500 to 15,000 AFY) and dry year (15,000 to 35,000 AFY) groundwater operating plan for that aquifer. The model was run over a 78-year hydrologic period, which was selected from actual historical precipitation to examine a number of hydrologic conditions expected to affect both groundwater pumping and groundwater recharge.

Simulated Alluvial aquifer response to the range of hydrologic conditions and pumping stresses was essentially a long-term repeat of the historical conditions that have resulted from similar pumping over the last several decades. The resultant response included: (a) generally constant groundwater levels in the middle to western portion of the Alluvium, and fluctuating groundwater levels in the eastern portion as a function of wet and dry hydrologic conditions; (b) variations in recharge that directly correlate with wet and dry hydrologic conditions; and (c) no long-term decline in groundwater levels or storage. Consequently, prior UWMPs considered the Alluvial aquifer to be a sustainable water supply source to meet the Alluvial portion of the groundwater operating plan.

In 2008, partly in preparation for the 2010 UWMP, and partly in response to concerns about regulatory and litigation constraints that could potentially affect the future reliability of SWP supplies, an updated analysis was undertaken (2009 Basin Yield Update) to assess groundwater development potential and possible augmentation of the groundwater operating plan. In addition to extending the model's calibration, the updated analysis simulated the historical record of climate and incorporated SWP deliveries for those climatic conditions for an 86-year period from 1922 through 2007, in place of the original model's 78-year hydrologic period that had been developed prior to the availability of combined climate and SWP deliveries since 1922.

While the overall groundwater operating plan ranges in the updated basin yield analysis did not change from the original operating plan, prevailing land-use conditions and the specific distributions of pumping were found to produce the same kinds of resultant Alluvial groundwater conditions as concluded to be sustainable in 2005: (a) no long-term declines in Alluvial groundwater levels and storage; (b) multi-year periods of locally declining, or locally increasing, groundwater levels in response to cycles of below-normal and above-normal precipitation; and

(c) short-term impacts on pumping capacities in eastern parts of the basin due to declining groundwater levels during dry periods, reduced by some redistribution of pumping (reflected in pumping volumes included in the 2015 UWMP) and by conformance with the dry-period reduction in Alluvial pumping in the groundwater operating plan.

Based on the results of the updated basin yield analysis (2009 Basin Yield Update), the groundwater operating plan is considered to reflect ongoing sustainable groundwater supply rates. In the Alluvium, sustainability was found via explicit simulation of pumping in wet/normal years near the upper end of the groundwater operating plan range. In dry years, sustainability was found via explicit simulation of pumping throughout the dry-year groundwater operating plan range, with the additional consideration that some pumping redistribution (reflected in the 2015 UWMP) be implemented to achieve pumping rates near the upper end of the dry-period range.

2.1.2. Saugus Formation

Based on historical operating experience and updated groundwater modeling analyses, the Saugus Formation can supply water on a long-term sustainable basis in a normal range of 7,500 to 15,000 AFY. Intermittent increases to 25,000 to 35,000 AF in dry years has not been historically experienced operationally, however, investigations of the Saugus Formation, historical groundwater level monitoring data, and numerical modeling indicate that the Saugus Formation can be pumped sustainably at these higher rates, followed by reductions in pumping in wet to normal years. The dry-year increases, based on modeled projections, demonstrate that the 25,000 to 35,000 AFY is a small amount of the large groundwater storage in the Saugus Formation and these amounts can be pumped over a relatively short (dry) period. This would be followed by recharge (replenishment) of that storage during a subsequent normal-to-wet period when the Saugus Formation pumping would be reduced to 7,500 to 15,000 AFY.

Adequacy of Capacity and Supply

For municipal water supply, the three retail water purveyors with Saugus wells (NCWD, SCWD, and VWC) have a combined pumping capacity from active wells of nearly 17,000 gpm, which translates into a full-time Saugus source capacity of about 27,000 AFY. Additionally, LACWWD 36 completed a Saugus Well with a pumping capacity estimated at 2,000 gpm and an annual capacity of 3,220 AFY. Saugus pumping capacity from all the existing active municipal supply wells, as well as restored, replacement, and planned new supply wells is summarized in Table 5, Municipal Groundwater Source Capacity — Existing, Restored, and Planned Saugus Formation Wells. The active wells include two Saugus wells contaminated by perchlorate (Saugus 1 and 2), which have been returned to service in 2010 with treatment facilities for use of the treated water for municipal supply under permit from the California Department of Public Health (DPH), now the State Water Resources Control Board's Division of Drinking Water (DDW). The active wells also include the most recent replacement well, VWC's Well 207, in a non-impacted part of the basin. Also included in Table 5 is VWC Well 201 which was impacted by the detection of perchlorate and removed from service in 2010. VWC Well 201 is expected to be restored to service by 2017 with treatment facilities for use of the treated water for municipal supply under a permit from DDW (formerly DPH), similar to the Saugus 1 and Saugus 2 wells. VWC Well 201 provides a total of 2,400 gpm of pumping capacity (for a dry-year production capacity of 3,775 AFY), and is shown in Table 5 under Restored Wells. Following the shutdown of VWC Well 201, VWC also reduced pumping from a nearby well (VWC 205) to minimize potential influences on

perchlorate migration. VWC Well 205 was voluntarily removed from service in 2012 when perchlorate was detected at concentrations below reporting levels. VWC Well 205 will be returned to service with VWC Well 201. Because VWC Well 205 was voluntarily removed from service, it is considered an active existing well in Table 5.

Table 5 includes an adjusted operating scenario to account for anticipated pumping from the Saugus Aquifer Extraction Pilot Program. This system is currently being installed and is expected to be operational in 2017 with an annual extraction of 800 AFY from the Saugus Formation. The extracted groundwater will be treated for perchlorate removal and returned to the Santa Clara River pursuant to system-related permits. It is anticipated that a portion of the treated water may recharge the Alluvium, especially in dry periods when there may be available vacated aquifer storage. Plans between CLWA, the retail purveyors, and Whittaker-Bermite to utilize the treated water for municipal purposes have not been fully explored at this time due to an absence of conveyance facilities to transport the treated water to the municipal distribution system.

**Table 5
Municipal Groundwater Source Capacity - Existing, Restored, and
Planned Saugus Formation Wells (a)**

General Manager's Conference Room	Pump Capacity (gpm)	Max. Annual Capacity (AF)	Simulated Basin Yield Analysis		Adjusted Basin Yield Usage ^(c)	
			Normal Year (AF)	Dry Year (AF)	Normal Year (AF)	Dry Year (AF)
Existing Wells						
LACWWD36			500	500	500	500
Palmer	2,000	3,220	500	500	500	500
NCWD						
12	2,400	3,870	1,762	2,488	1,587	2,488
13	2,250	3,630	1,762	2,488	1,587	2,488
NCWD Subtotal	4,650	7,500	3,525	4,975	3,175	4,975
VVC						
159	500	800	50	50	25	50
160	2,000	3,220	0	0	0	0
205 ^(a)	2,700	4,355	350	4,040	150	4,040
206	2,500	4,030	260	3,500	145	3,500
207	2,500	4,030	260	3,500	150	3,500
VVC Subtotal	10,200	16,435	920	11,090	470	11,090
SCWD						
Saugus 1	1,100	1,772	1,650	1,650	1,650	1,650
Saugus 2	1,100	1,772	1,650	1,650	1,650	1,650
SCWD Subtotal	2,200	3,545	3,300	3,300	3,300	3,300
Total Existing	19,050	30,700	8,245	19,865	7,445	19,865
Restored Well						
VVC 201 ^(a)	2,400	3,870	3,230	3,775	3,230	3,775
Replacement Well						
Future #1	2,500	4,000	0	4,000	0	4,000
Planned Wells						
Future #2, #3, #4 ^(a)	6,200	10,000	0	6,360	0	5,560
Total Purveyors	30,150	48,570	11,475	34,000	10,675	33,200

Source: 2015 UWMP, Table 3-9

Notes:

(a) The quantities of groundwater extracted by existing or planned well capacity will vary depending on operating conditions experienced such as the quantity of an individual retailers existing capacity. This is illustrated in the more detailed supply and demand tables in the 2015 UWMP Appendix C, which show differing mixes of pumping from existing and planned wells. However, overall pumping remains within the groundwater basin yields.

(b) Usage amounts are results from simulations in the updated Basin Yield analysis (LSCE & GSI, 2009) and from analysis conducted in 2014 for Well 201 restoration and containment investigation. Dry-year production represents maximum dry year production (Dry Year 3 in Table 2).

(c) Simulated results adjusted to reduce Purveyor pumping by projected 800 AFY of Whittaker-Bermite pumping for perchlorate treatment.

(d) VWC Well 201 is planned to be returned to service by 2017 with treatment under a permit from the DDW. The operation of VWC Well 205 was temporarily suspended on a voluntary basis until Well 201 is returned to service.

(e) A portion of production from Future well #2 would be used to restore Saugus Formation well capacity lost due to perchlorate impacts, and the remainder for new additional dry year capacity.

In terms of adequacy and availability, the combined active Saugus groundwater source capacity of municipal wells of 30,000 AFY is more than sufficient to meet the planned use of Saugus groundwater in normal years of 7,500 to 15,000 AFY. This existing active capacity is also more than sufficient to meet near term dry-year water demands, in combination with other sources. In order to supplement long term dry-year supplies, additional Saugus Formation wells are planned to be operational within the next three years.

With the restored capacity of VWC Well 201 and the additional planned replacement and new Saugus wells, the total dry year combined capacity will increase from about 30,700 AFY to about 48,570 AFY. This combined capacity is more than sufficient to meet the multiple dry-year municipal production target of 34,000 AFY.

Sustainability

Historically (and continuing to the present), pumping from the Saugus Formation has been fairly low in most years, with one four-year period of increased pumping up to about 15,000 AFY that had short-term water level impacts but produced no long-term depletion of the substantial groundwater storage in the Saugus. As discussed above, empirical observations have been complemented by the development and application of the numerical groundwater flow model, which has been used to examine aquifer response to the groundwater operating plan for pumping from both the Alluvium and the Saugus, and to examine the effectiveness of pumping for both contaminant extraction and control of contaminant migration within the Saugus Formation. Some of the production capacity that was previously impaired by contamination has been restored and that pumping is reflected in the 2015 UWMP as part of the Saugus groundwater operating plan and pumping distribution.

To examine the yield of the Saugus Formation, or its sustainability on a renewable basis, the original groundwater flow model was used to examine long-term projected response to pumping from both the Alluvium and the Saugus over the 78-year period of hydrologic conditions that incorporated alternating wet and dry periods as have historically occurred (see 2005 Basin Yield Report). For the Saugus Formation, simulated pumping included the then-planned restoration of historic pumping from the perchlorate-impacted wells.

The originally simulated Saugus Formation response to the ranges of operating plan pumping under assumed recurrent historical hydrologic conditions was consistent with actual experience under smaller pumping rates: (a) short-term declines in groundwater levels and storage near pumped wells during dry-period pumping; (b) recovery of groundwater levels and storage after reduction of dry-period pumping; and (c) no long-term decreases or depletion of groundwater levels or storage. The combination of actual experience with Saugus recharge and pumping up to about 15,000 AFY, complemented by modeled projections of aquifer response that showed long-term utility of the Saugus at 7,500 to 15,000 AFY in normal years and rapid recovery from higher pumping rates during intermittent dry periods, was the basis for concluding that the Saugus Formation could be considered a sustainable water supply source to meet the Saugus portion of the groundwater operating plan.

As stated above, in 2008, an updated basin yield analysis was undertaken to assess groundwater development potential and possible augmentation of the groundwater operating plan (see 2009 Basin Yield Update). After extended and updated model calibration and incorporation of extended historical records, the overall groundwater operating plan and specific

distribution of Saugus pumping were found to produce the same kinds of resultant Saugus groundwater conditions as concluded to be sustainable in 2005: (a) long-term stability of groundwater levels, with no sustained declines; (b) groundwater levels slightly below historic Saugus levels, in response to greater long-term utilization of the Saugus; and (c) maintenance of sufficiently high Saugus groundwater levels to ensure achievement of planned individual pumping capacities. Thus, the groundwater operating plan for the Saugus, with fairly low pumping in wet/normal years and increased pumping through dry periods, is concluded to reflect sustainable groundwater supply rates.

2.1.3. Existing and Planned Groundwater Pumping

Impacted Well Capacity

As discussed in Section 5.2.1 of the 2015 UWMP, certain wells in the basin were impacted by perchlorate contamination and thus represented a temporary loss of well capacity within the CLWA service area. Six wells were ultimately taken out of service upon the detection of perchlorate including four Saugus wells and two Alluvial wells. All have been either: (a) abandoned and replaced; (b) returned or returning to service with the addition of treatment facilities that allow the wells to be used for municipal water supply as part of the overall water supply systems permitted by DDW; or (c) will be replaced under an existing perchlorate litigation settlement agreement. The restored wells (two Saugus wells and one Alluvial well), the one Saugus well which is currently being restored, and the replacement wells (one Saugus and one Alluvial well), which collectively restore much of the temporarily lost well capacity, are now included as parts of the active municipal groundwater source capacities delineated in Tables 4 and 5, above. Also discussed in the 2015 UWMP, additional wells will be drilled to fully restore the impacted well capacity, thus restoring the operational flexibility that existed prior to the perchlorate being discovered.

In August 2010, VWC's Well 201, located downgradient from the former Whittaker-Bermite site and downgradient from the initially impacted Saugus 1, Saugus 2, and V157 wells, had detectable concentrations of perchlorate and the well was taken out of service. VWC already has completed significant updated groundwater modeling analysis of the Saugus Formation, and is currently working with expert consultants to restore Well 201 as a drinking water source through installation of wellhead treatment. In addition, a process with the DDW already is underway to add wellhead treatment to Well 201 so it can be returned to service. VWC currently plans to complete installation of wellhead treatment so that Well 201 is operable by late 2016 or early 2017, and DDW is working with VWC to accomplish this goal.

In addition, VWC's updated groundwater modeling analysis has shown that returning Well 201 to service is an important component of the strategy to contain perchlorate in the Saugus Formation. In particular, pumping Well 201 on a sustained, continuous basis at close to its full capacity (up to 2,400 gallons per minute), with an allowance for routine maintenance down-time each year, can provide hydraulic containment of perchlorate present in the Saugus Formation groundwater west of the Whittaker-Bermite site, and provide protection of downgradient production wells that currently are not impacted by perchlorate.

Private and Agricultural Groundwater Pumping

The 2015 UWMP groundwater operating plan recognizes ongoing Alluvial pumping for both municipal and agricultural water supply, as well as other small private domestic and related pumping.

In addition to private agricultural production, the 2015 Santa Clarita Valley Water Report indicates that total small private pumping is likely well within the 500 AFY estimates in recent annual Santa Clarita Valley Water Reports, or about 1 percent of typical Alluvial aquifer pumping by the purveyors and other known private well owners (e.g., agricultural pumpers) combined. Thus, small private wells create a pumping demand that is essentially negligible at the scale of the regional model.

The 2015 UWMP provides estimates of the projected groundwater use by each of the retail purveyors during normal year scenarios. (See 2015 UWMP, Table 3-7.) As discussed above and in the 2015 UWMP, CLWA and the purveyors recognize that these estimates of projected groundwater use are subject to adjustment based on various factors and conditions occurring from time-to-time, and do not constitute an allocation of groundwater from the local basin.

2.1.4. Written Contracts or Other Proof of Supplies

The following is a list of major reports, studies, agreements, and other actions pertinent to the establishment of groundwater supply rights in the Santa Clarita Valley. The “short title” for each document is provided below and described in further detail in Section 5.0, References. The documents show the absence of existing or projected overdraft in both the Alluvial aquifer and Saugus Formation.

- 2015 Santa Clarita Valley Water Report, June 2016.
- Analysis of Groundwater Supplies and Groundwater Basin Yield, Upper Santa Clara River Groundwater Basin, East Subbasin, Los Angeles County, California, August 2009.
- Calibration Update of the Regional Groundwater Flow Model for the Santa Clarita Valley, Santa Clarita, California, August 2005.
- Analysis of Near-Term Groundwater Capture Areas for Production Wells Located Near the Whittaker-Bermite Property (Santa Clarita, California) December 21, 2004.
- Analysis of Perchlorate Containment in Groundwater near the Whittaker-Bermite Property, Santa Clarita, California, December 2004.
- Regional Groundwater Flow Model for the Santa Clarita Valley: Model Development and Calibration, April 2004.
- Groundwater Management Plan - Santa Clara River Valley Groundwater Basin, East Subbasin, December 2003.
- California's Groundwater, Bulletin 118 - Update 2003, October 2003.
- 2001 Update Report: Hydrogeologic Conditions in the Alluvial and Saugus Formation Aquifer Systems, July 2002.
- Memorandum of Understanding between the Santa Clara River Valley Upper Basin Water Purveyors and United Water Conservation District dated August 2001.

2.1.5. Permits/Approvals or Other Necessary Regulatory Approvals

The primary groundwater-related documents that have received local approval are listed below:

- 2015 UWMP, June 2016. The 2015 UWMP was adopted by CLWA, SCWD, VWC and NCWD in June 2016 and filed with DWR in accordance with the UWMP Act. The resolutions and other actions memorializing adoption of the 2015 UWMP are on file with the respective agencies and incorporated by reference.
- Groundwater Management Plan - Santa Clara River Valley Groundwater Basin, East Subbasin, December 2003. CLWA adopted the Groundwater Management Plan in December 2003. The resolutions and other actions memorializing adoption of the Groundwater Management Plan by CLWA are on file with CLWA and incorporated by reference.
- CDPH. Water Supply Permit Amendment (CLWA-Saugus Perchlorate Treatment Facility), December 30, 2010.

2.2. Imported SWP Supplies

CLWA's service area covers approximately 195 square miles (124,800 acres), including the entire City of Santa Clarita and surrounding unincorporated communities. CLWA obtains SWP water from a SWP terminal reservoir, Castaic Lake. The water is treated, filtered, and disinfected at CLWA's Earl Schmidt Filtration Plant and Rio Vista Water Treatment Plant, which have a combined treatment capacity of 122 mgd. Treated water is delivered from the treatment plants by gravity flow to each of the four retail purveyors (SCWD, Los Angeles County Waterworks District No. 36, NCWD, and VWC) through a distribution network of pipelines and turnouts. At present, CLWA delivers water to the four retail purveyors through 26 turnouts.

CLWA obtains water supplies from the SWP, which is owned and operated by DWR. CLWA is one of 29 contractors holding long-term SWP contracts with DWR. The SWP contracts entered into in the 1960s had initial 75-year terms, which thus would begin to expire in 2035. While the SWP contracts provide for continued water service to the contractors beyond the initial term, efforts are currently underway to extend the contracts to improve financing for the SWP. Negotiations on extending the SWP contracts took place between DWR and the SWP Contractors during 2013 and 2014, and were open to the public.

The following terms were agreed to and are currently the subject of analysis under the requirements of the California Environmental Quality Act (CEQA) (Notice of Preparation dated September 12, 2014):

- Extend the term of the 29 SWP contracts to December 31, 2085.
- Provide for increased SWP financial operating reserves during the extended term of the SWP contracts.
- Provide additional funding mechanisms and accounts to address SWP needs and purposes.
- Develop a revised payment methodology with a corresponding billing system that better matches the timing of future SWP revenues to future expenditures.

It is anticipated that the term of the SWP contracts will be extended to December 31, 2085. The contracts and associated amendments are scheduled to be finalized by summer 2017.

SWP water originates as rainfall and snowmelt in northern and central California. Runoff is stored in Lake Oroville, which is the SWP's largest storage facility. The water is then released from Lake Oroville down the Feather River to the Sacramento River and the Sacramento-San Joaquin Delta. From the Delta, SWP supplies are conveyed via the California Aqueduct to the Bay area, the San Joaquin Valley, and regions of the Central Coast and southern California. Water delivered for use by CLWA is conveyed through the West Branch of the Aqueduct to Quail and Pyramid Lakes and then to Castaic Lake, the terminus for the West Branch.

Hydrologic conditions and other factors can alter and reduce the availability of Table A and other SWP supplies in a given year. The amount of water DWR determines is available and allocates for delivery in a given year is based on that year's hydrologic conditions, the amount of water in storage in the SWP system, current regulatory and operational constraints, and the SWP contractors' requests for SWP supplies. The long-term average availability of Table A deliveries during normal, single-dry, and multiple-dry year scenarios over the 20-year projection has been analyzed by DWR and is further discussed below.

CLWA has a contractual Table A Amount of 95,200 AF per year of water from the SWP.²⁰

Other Types of SWP Water

Each long-term water supply contract describes various types of SWP water that are available to SWP contractors to supplement their Table A water: (a) Article 21 water; (b) carryover water; and (c) turnback pool water.

Article 21 water (so named because it is described in Article 21 of the water supply contracts) is water that SWP contractors may receive on a short-term basis in addition to their Table water, if they request it. DWR makes Article 21 water available to SWP contractors during periods when the supply of SWP water exceeds the cumulative delivery requests scheduled by the SWP contractors. Article 21 water may become available during drier year types, not just during wetter years.

Carryover water is SWP water that is allocated to a SWP contractor and approved for delivery to that contractor in a given year, but not used by the end of the year. This water is exported from the Delta, but instead of being delivered to the SWP contractor, it is stored in the SWP's share of the San Luis Reservoir, when space is available, for the contractor to use in the following year.

SWP contractors also may offer a portion of their Table A water that has been allocated in the current year and exceeds their needs to a "turnback pool," where another contractor may purchase it. Contractors that sell their extra Table A water in a turnback pool receive payments from contractors that buy this water through the turnback pool. The 2015 State Water Project Final Delivery Capability Report estimates that the likelihood of existing-condition SWP Article

²⁰ Of CLWA's 95,200 AF of SWP Table A Amount, 41,000 AF of annual Table A Amount was acquired by CLWA from the Kern County Water Agency's member-district, Wheeler Ridge-Maricopa Water Storage District, in March 1999, through a water transfer approved by DWR in amendments to its water supply contracts with CLWA and Kern County Water Agency. The 41,000 AFY water transfer was the subject of both a Draft and Final EIR under CEQA. CLWA's Board of Directors certified the Final EIR and approved the 41,000 AFY water transfer on December 23, 2004. On December 17, 2009, the Court of Appeal, Second District, issued a published decision upholding the sufficiency of the EIR under the CEQA.

21 deliveries being greater than 20 taf/year is 18% (a reduction of 3% from the levels estimated in the 2013 Delivery Reliability Report).²¹

The availability of Article 21 water and turnback pool water fluctuates substantially. When available, these supplies provide additional water that CLWA may be able to use, either directly to meet demands or for later use after storage in its groundwater banking programs. To the extent CLWA is able to make use of these supplies when available, CLWA may be able to improve the reliability of its SWP supplies beyond the amounts reflected in the adopted UWMP for the Santa Clarita Valley.

While not specifically provided for in the SWP water supply contracts, in single-dry years, DWR has created dry year water purchase programs for contractors needing additional supplies. Through these programs, water is purchased by DWR from willing sellers in areas that have available supplies and is then sold by DWR to contractors willing to purchase those supplies. The availability of these supplies is highly variable. However, CLWA's access to these supplies when they are available would enable it to improve the reliability of its dry-year supplies beyond the amounts reflected in the adopted 2015 UWMP.

Flexible Storage Account

As part of CLWA's water supply contract with DWR, CLWA has access to a portion of the storage capacity of Castaic Lake. This "flexible storage account" allows CLWA to utilize up to 4,684 AF of the storage in Castaic Lake. Any of this amount that CLWA borrows must be replaced by CLWA within 5 years of its withdrawal. CLWA manages this storage by keeping the account full in normal and wet years and then delivering that stored amount (or a portion of it) during dry periods. The account is refilled during the next year that adequate SWP supplies are available to CLWA to do so.

In 2005, CLWA negotiated with the Ventura County SWP contractor agency to obtain the use of its flexible storage account. This transaction allows CLWA access to another 1,376 AF of storage in Castaic Lake. CLWA access to this additional storage was available on a year-to-year basis through 2015. CLWA negotiated an extension to the original agreement that provides access to this additional storage on a year-to-year basis through 2025.

CLWA plans to use this supply only in dry years. For the single-dry year condition, it was assumed the entire amount would be used. For the two multiple-dry year conditions, it was assumed that the entire amount would be used sometime during the dry-year period, so the average annual supply during that period would be one fourth of the total for the four-year period and one third of the total for the three-year period. Any water withdrawn was assumed to be replaced in intervening average and wet years and would be available again for use in the next dry year.

Factors Affecting SWP Table A Supplies

While Table A identifies the maximum amount of Table A water a SWP contractor may request, the amount of SWP water actually available and allocated to SWP contractors each year is dependent on a number of factors and can vary and be reduced substantially from year-to-year. The primary factors affecting SWP water delivery reliability include the availability of water at the source of supply in northern California (i.e., hydrology) and regulatory restrictions on SWP

²¹ DWR. State Water Project Final Delivery Capability Report 2015. July, 2015.

operations.²² Other factors include potential climate change impacts and the potential for interruptions in conveying SWP supplies through the Delta due to earthquakes and Delta levee failure. DWR and other agencies are engaged in ongoing efforts to reduce risks to the Delta and enhance emergency response capabilities.²³

DWR specifically accounts for these various factors having the potential to affect the SWP delivery reliability in its computer modeling, which simulates the expected SWP deliveries under estimated existing and future conditions. DWR calculates the water delivery reliability of the SWP using the CalSim-II computer model, which simulates existing and future operations of the SWP. DWR's modeling is based on 82 years of historical data (water years 1922-2003), rainfall, and runoff, and the data have been adjusted to reflect 2015 current and future levels of development in the source areas. The resulting data is used to forecast the probable amount of water available to the SWP under current and future conditions (with the effects of climate change factored into the modeling for future conditions).

DWR's most current published estimate of SWP delivery reliability is found in the Final 2015 SWP Delivery Capability Report. As used by DWR, the term "water delivery reliability" refers to the annual amount of SWP water that can be expected to be delivered with a certain frequency, or in other words, the probability that a certain amount of water will be delivered by the SWP in a given year.

SWP Table A Supply Assessment

As noted above, DWR's Final 2015 SWP Delivery Capability Report includes DWR's estimates of SWP water delivery reliability under both existing (2015) and future (2035) conditions. According to the Report, many of the same challenges to SWP operations that were identified in the 2013 reliability report remain. For example, like the 2013 report, the 2015 report shows potential reductions in SWP Delta exports and Table A deliveries due to the operational restrictions imposed on the SWP by Biological Opinions issued by U.S. Fish and Wildlife Service in December 2008 and National Marine Fisheries Service in June 2009, and Delta water quality and flow restrictions from the State Water Resources Control Board's water quality control plan for the Delta. Estimates of future reliability also reflect potential effects of climate change and sea level rise.

DWR Analysis Results

The 2015 UWMP for the Santa Clarita Valley relies on DWR's most current Final 2015 SWP Delivery Capability Report to estimate SWP supplies. DWR's analysis of existing (2015) conditions is used to estimate near term SWP supplies and its analysis of future (2035) conditions is used to estimate 2035-2050 SWP supplies. As has been suggested by DWR, SWP supplies for the five-year increments between 2015 and 2035 are interpolated between these values. SWP supplies for years beyond 2035 are assumed to be the same as for 2035.

²² Please refer to the DWR Final 2015 SWP Delivery Capability Report, Chapter 2, for a detailed discussion of the factors affecting estimates of existing and future SWP water delivery reliability. DWR's Final 2015 SWP Delivery Capability Report is incorporated herein by reference.

²³ Please refer to the DWR Final 2015 SWP Delivery Capability Report, Chapters 3 and 4, for an in-depth discussion of the actions being taken by DWR and other agencies to reduce risks to the Delta and enhance emergency response capabilities.

DWR's current estimates show that the SWP can deliver on a long-term average basis 62% of the total maximum Table A amounts under existing conditions and 61% under future conditions. In the worst-case single-dry year, DWR estimates the SWP can deliver 11% of the total maximum Table A amounts under existing conditions, and 8% under future conditions. DWR estimates during a four-year dry period that the SWP can deliver an average 33% of the total maximum Table A amounts under existing and future conditions, and during a three-year dry period that the SWP can deliver an average 21% under existing conditions and 20% under future conditions.²⁴

The extremely dry sequence from the beginning of January 2013 through the end of 2015 was one of the driest two-year periods in the historical record. Water year 2013 was a year with two hydrologic extremes.²⁵ October through December 2012 was one of the wettest fall periods on record, but was followed by the driest consecutive 12 months on record. Accordingly, the 2013 SWP supply allocation was a low 35 percent of SWP Table A Amounts. The 2013 hydrology ended up being even drier than DWR's conservative hydrologic forecast, so the SWP began 2014 with reservoir storage lower than targeted levels and less stored water available for 2014 supplies. Compounding this low storage situation, 2014 also was an extremely dry year, with runoff for water year 2014 the fourth driest on record. Due to extraordinarily dry conditions in 2013 and 2014, the 2014 SWP water supply allocation was a historically low 5 percent of Table A Amounts. The dry hydrologic conditions that led to the low 2014 SWP water supply allocation were extremely unusual, and to date this hydrology has not been included in the SWP delivery estimates presented in DWR's Final 2015 SWP Delivery Capability Report (2015 DCR). It is anticipated that the hydrologic record used in the DWR model will be extended to include the period through 2014 during the next update of the model, which is expected to be completed prior to issuance of the next update to the Report. For the reasons stated above, the 2015 UWMP for the Santa Clarita Valley and this WSV use a conservative assumption that a 5 percent allocation of SWP Table A Amounts represents the "worst case" scenario. CLWA and the local purveyors, including SCWD, were able to accommodate all demands during 2014, in spite of this low level of SWP deliveries, due to the reliability systems that have been put in place by CLWA and the purveyors for this very occurrence. Calls for conservation from our customers were answered, and the Santa Clarita Valley was also able to benefit from the water banking programs that CLWA has implemented.

Table 6 shows SWP supplies projected to be available to CLWA in average/normal years (based on the average delivery over a repeat of the study's historic hydrologic period from 1922 through 2003).

²⁴ See DWR Final 2015 SWP Delivery Capability Report, Section 6, Table 6-4. On average, annual delivery of Table A water estimated in the 2015 report is 2,550 taf/year, 3 taf less than the 2,553 taf/year estimated in the 2013 report. On average, the dry-period deliveries of Table A water were also lower in the 2013 report than in the 2015 report. According to DWR, the change is due to model refinements discussed in detail in Appendix B accompanying the Final 2015 SWP Delivery Capability Report (see Section 6, p. 27).

²⁵ A water year begins in October and runs through September. For example, water year 2013 is October 2012 through September 2013.

Table 6 also summarizes estimated SWP supply availability in a single dry year (based on a repeat of the historic hydrologic conditions of 1977, as well as the worst-case actual allocation of 2014) and over two multiple dry year periods (based on a repeat of the historic four-year drought of 1931 through 1934, and three-year drought of 1990 through 1992).

**Table 6
SWP Table A Supply Reliability (AF) (a) (b)**

Wholesaler(Supply Source)	2015	2020	2025	2030	2035-2050
<i>Average Water Year</i> ^(c)					
DWR (SWP)					
Table A Supply	59,000	58,800	58,500	58,300	58,100
% of Table A Amount ^(d)	62%	62%	61%	61%	61%
<i>Single-Dry Year</i>					
DWR (SWP)					
Table A Supply ^(e)	10,500	9,800	9,000	8,300	7,600
% of Table A Amount ^(d)	11%	10%	9%	9%	8%
Table A Supply ^(f)	4,800	4,800	4,800	4,800	4,800
% of Table A Amount ^(d)	5%	5%	5%	5%	5%
<i>Multiple-Dry Year</i>					
DWR (SWP)					
<i>Four-Year Period</i> ^(g)					
Table A Supply	31,400	31,400	31,400	31,400	31,400
% of Table A Amount ^(d)	33%	33%	33%	33%	33%
<i>Three-Year Period</i> ^(h)					
Table A Supply	20,000	19,800	19,500	19,300	19,000
% of Table A Amount ^(d)	21%	21%	20%	20%	20%

Source: 2015 UWMP, Table 3-2

Notes:

- (a) Supplies to CLWA are based on DWR analyses presented in its 2015 DCR, assuming existing SWP facilities and current regulatory and operational constraints (except as otherwise indicated in Note f)
- (b) Table A supplies include supplies allocated in one year that are carried over for delivery the following year.
- (c) Based on average deliveries over a repeat of the study's historic hydrologic period of 1922 through 2003.
- (d) Supply as a percentage of CLWA's Table A Amount of 95,200 AF.
- (e) Based on a repeat of the worst case historic single dry year of 1977 (from 2015 DCR).
- (f) Based on the worst-case actual allocation of 2014.
- (g) Supplies shown are annual averages over four consecutive dry years, based on a repeat of the historic four-year dry period of 1931-1934.
- (h) Supplies shown are annual averages over three consecutive dry years, based on a repeat of the historic three-year dry period of 1990-1992.

Comparison of DWR Analysis Results for SWP Supplies From 2009 to 2015 (Under Current (2015) Conditions)

Table 7, Average and Dry-Period SWP Table A Deliveries Under Current Conditions and Resulting Deliveries to CLWA, provides average and dry-period Table A deliveries for current conditions (2015) from the Final 2015 SWP Delivery Capability Report and compares those figures to those in the 2009, 2011, and 2013 Delivery Reliability Reports.

As shown on Table 7, applying the Final 2015 SWP Delivery Capability Report Table A delivery percentages under current conditions to CLWA's Table A Amount of 95,200 AFY, results in approximately 59,024 AFY under average year conditions, 10,472 AFY under single-dry year conditions, and 29,274 AFY (on average) under multiple-dry year conditions.

	SWP Table A Delivery (Percent of Maximum Table A Amount) ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾					
	Long-Term Average	Single Dry Year (1977)	2-Year Drought (1976–1977) ⁽²⁾	4-Year Drought (1931–1934)	6-Year Drought (1987–1992)	6-Year Drought (1929–1934) ⁽³⁾
2009 Report	2,483 (60%)	302 (7%)	1,496 (36%)	1,402 (34%)	1,444 (35%)	1,398 (34%)
2011 Report	2,524 (61%)	377 (9%)	1,571 (38%)	1,455 (35%)	1,461 (35%)	1,433 (35%)
2013 Report	2,553 (62%)	495 (12%)	1,269 (31%)	1,263 (31%)	1,176 (28%)	1,260 (30%)
2015 Report ⁽⁴⁾	2,550 (62%)	454 (11%)	1,165 (28%)	1,356 (33%)	1,182 (29%)	1,349 (33%)
CLWA Table A Delivery (2015) ⁽⁵⁾	59,024	10,472	26,656	31,416	27,608	31,416

Source: 2009, 2011, 2013 Delivery Reliability Reports and 2015 Delivery Capability Report

Notes:

- (1) Maximum Table A Amount is 4,132 thousand acre-feet/year (taf/yr).
- (2) Droughts are analyzed using the historical drought-period precipitation and runoff patterns from 1922–2003 as a reference, although existing 2013 conditions (e.g., land use, water infrastructure) are also accounted for in the modeling.
- (3) For reference, the worst multi-year drought on record was the 1929–1934 drought, although the brief drought of 1976–1977 was more intensely dry.
- (4) The 2015 Delivery Capability Report results shown here are used in the most current 2015 UWMP for the Santa Clarita Valley.
- (5) Rows 1-4 above reflect statewide maximum Table A Amounts expressed in thousand acre-feet (taf/yr) quantities. In contrast, this Row 5 expresses CLWA's maximum Table A Amount in acre-feet (AF) quantities. Average deliveries under the range of multiple-dry year conditions is 29,274 AF.

2.2.1. Written Contracts or Other Proof of Supplies

In addition to the discussion above the following is a list of major reports, studies, agreements, and other actions pertinent to the availability of SWP supplies in the Santa Clarita Valley. The “short title” for each document is provided below and described in further detail in Section 5.0, References.

- Water Supply Contracts between DWR and CLWA (plus amendments, including the “Monterey Amendments,” 1995, and Amendment No. 18, 1999, the transfer of 41,000 acre-feet of SWP Table A Amount).²⁶
- SWP Final Delivery Capability Report, July 2015.
- 2009, 2011, 2013 Delivery Reliability Reports.
- 2015 Santa Clarita Valley Water Report, June 2016.
- Monterey Settlement Agreement, 2003.
- 2007 CLWA Water Acquisition Agreement with Buena Vista Water Storage District and Rosedale-Rio Bravo Water Storage District.

2.2.2. Permits/Approvals or Other Necessary Regulatory Approvals

The primary SWP-related documents that have received state or local approvals are listed below:

Water Supply Contracts between DWR and CLWA (plus amendments, including the “Monterey Amendments,” 1995, and Amendment No. 18, 1999, the transfer of 41,000 acre-feet of SWP Table A Amount).

- Monterey Settlement Agreement, 2003.
- 2015 UWMP, June 2016.
- Final EIR -- Supplemental Water Project Transfer of 41,000 Acre-Feet of SWP Table A Amount, certified December 23, 2004, including all CLWA approval resolutions and other final actions relating thereto.
- Final Monterey Plus EIR, 2010. The Monterey Plus EIR is the subject of a legal challenge. The effect of that litigation on SWP/CLWA water supplies is explained in Subsection 2.2.3, below.
- Data Document Providing Economic Justification for Proposed Facility Capacity Fees, CLWA, April 19, 2003.
- Buena Vista/Rosedale-Rio Bravo Water Storage Districts Water Acquisition Final EIR, 2006.

The primary project specific documents include the following:

- Skyline Ranch Final EIR (certified May 2010)).

²⁶ The DWR/CLWA water supply contracts set forth the availability of SWP supplies to CLWA.

2.2.3. Effect of Monterey Plus EIR Litigation On SWP/CLWA Water Supplies

In 1994, DWR and the SWP contractors (including CLWA) engaged in mediated negotiations in a broader attempt to update management of the SWP and settle water allocations disputes arising under the long-term SWP water supply contracts that were executed in the 1960s. The negotiations grew into an omnibus revision to the contracts known as the “Monterey Amendment.” The Monterey Amendment had several principle objectives: (1) resolve conflicts and disputes among SWP contractors regarding water allocations; (2) restructure and clarify SWP water allocation procedures and deliveries in times of shortage and surplus; (3) reduce financial pressures on agricultural contractors; (4) adjust the SWP’s financial rate structure to more closely match revenues with needs; (5) facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with contractors’ other local supplies; (6) resolve legal and institutional issues related to groundwater storage of SWP water; and (7) transfer 20,000 acres in Kern County known as the “Kern Fan Element” to local water agencies to facilitate development of a locally operated groundwater bank.

After execution of the Monterey Amendment by DWR and a majority of the SWP contractors (including CLWA), the environmental group Planning and Conservation League filed suit in December of 1995 seeking to invalidate the Monterey Amendment and its environmental impact report (EIR) prepared under the California Environmental Quality Act (CEQA). That lawsuit ultimately ended in a court-approved settlement agreement in 2003. The settlement provided, among other things, that DWR would prepare a new EIR for the Monterey Amendment, the previously approved and executed Monterey Amendments would remain in effect for 27 SWP contractors, and DWR would implement the Monterey Amendment in operating the SWP while it prepared the new EIR.

On February 1, 2010, DWR certified the new EIR. On May 4, 2010 DWR’s Director certified the EIR and decided to continue implementing the Monterey Amendment. On June 3, 2010, two petitioner groups filed separate lawsuits seeking to invalidate the Monterey Amendment and the related transfer of the Kern Fan Element based on alleged violation of CEQA.²⁷ The trial court bifurcated the issues for a series of trials. In January 2013 the court issued a final statement of decision for phase one, finding that petitioners’ reverse validation actions seeking to invalidate the Monterey Amendment and Kern Fan Element transfer were barred by the statute of limitations.

The trial court proceeded to hear briefing on the remaining CEQA claims and issued a ruling in March 2014 finding that DWR’s new EIR for the Monterey Amendment complied with CEQA in all respects except for its analysis of the future impacts of the operations of the local Kern Water Bank that was developed by local water agencies on the Kern Fan Element land transferred as part of the Monterey Amendment. In October 2014, the trial court issued its final ruling addressing the remedy under CEQA. The court ordered decertification of the Monterey Plus Amendment EIR, noting however that DWR is not required to prepare an entirely new EIR and

²⁷ *Central Delta Water Agency et al. v. Department of Water Resources et al.* (Sacramento Superior Court Case No. 34-2010-80000561), *Rosedale-Rio Bravo Water Storage District et al. v. Department of Water Resources* (Sacramento Superior Court Case No. 34-2010-80000703).

that only the new EIR sections will be subject to further challenge. Importantly, prior project approvals are to remain in place and the Kern Water Bank may continue to operate while DWR corrects the EIR. Notably, SWP operations and water deliveries to CLWA are not affected by the outcome of the case because SWP operations are independent from operations of the separate Kern Water Bank facilities. The trial court decision was appealed by several parties and the appeal process is pending. Other Factors Affecting State Water Project Deliveries

2.2.4. Other Factors Affecting State Water Project Deliveries

Various legal, regulatory, climatic and environmental factors have the potential to affect the availability and reliability of SWP supplies. As discussed above, the California Department of Water Resources (DWR) specifically accounts for these and other factors in evaluating the projected delivery capability of SWP supplies to the State Contractors. Following is a brief summary of several other factors concerning the SWP.

FWS and NMFS Biological Opinions

In December 2008 and June 2009, respectively, the United States Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) issued biological opinions (BiOps) setting forth each agency's conclusions regarding the effects that the proposed long-term coordinated operations of the SWP and Central Valley Project (CVP) would have on threatened and endangered fish species in the Delta.²⁸ Both BiOps conclude that the operation of the SWP and CVP as proposed by DWR and the Bureau of Reclamation would jeopardize the continued existence of the protected species. Because FWS and NMFS reached "jeopardy" conclusions, each was required by the federal Endangered Species Act (ESA) to develop a Reasonable and Prudent Alternative (RPA) to the proposed project, and to include that RPA in its respective BiOp. According to their terms, the RPAs developed and adopted by FWS and NMFS impose various new restrictions and requirements on SWP and CVP operations.

As applied to the SWP, the RPAs included in the BiOps have the potential to result in substantially reduced water exports from the Delta. Previous estimates prepared by DWR indicated that, in comparison to the level of SWP exports from the Delta that previously were authorized under State Board Decision 1641 (D-1641),²⁹ the FWS BiOp could reduce SWP deliveries by 18 to 29 percent during average and dry conditions, respectively, and the NMFS BiOp could reduce SWP deliveries by an additional 10 percent (for an aggregate reduction of 28 to 39 percent). Those potential reductions, however, cannot be predicted with certainty because the RPA restrictions are dependent upon highly variable factors such as hydrologic conditions affecting Delta water supplies, flow conditions in the Delta, migratory and

²⁸ The December 15, 2008 FWS BiOp evaluated impacts to the delta smelt. The June 4, 2009 NMFS BiOp evaluated impacts to winter-run and spring-run Chinook salmon, steelhead, green sturgeon, and resident killer whales.

²⁹ D-1641 implements the objectives of the 1995 Bay-Delta Plan and imposes flow and water quality objectives to assure protection of beneficial uses in the Delta. The requirements of D-1641 address, among other things, standards for fish and wildlife protection, municipal and industrial water quality, agricultural water quality, and salinity. D-1641 imposed a new operating regime for the Delta, including measures such as "X2," an export/inflow ratio, and the Vernalis Adaptive Management Program (VAMP). The standards under D-1641 are accomplished through requirements and conditions imposed on the water right permits for the SWP, the CVP and others.

reproductive patterns of the protected species, and numerous other non-project factors that impact the health and abundance of fish species and their habitats. As further discussed above, the RPA restrictions contained in the BiOps have been expressly accounted for in DWR's Final 2015 SWP Delivery Capability Report and future projections of SWP deliveries.

FWS BiOp Litigation

In early 2009, the State Water Contractors, the San Luis Delta-Mendota Water Authority, and several individual water agencies holding contracts for SWP and CVP supplies filed legal challenges against the FWS BiOp regarding delta smelt. (The Consolidated Delta Smelt Cases, E.D. Cal. 1:09-CV-00407-OWW-GSA.) In November 2009, the Federal District Court of the Eastern District of California granted summary judgment on the claim made by several plaintiffs that the federal defendants violated the National Environmental Policy Act (NEPA) by failing to perform NEPA analysis prior to provisionally adopting and implementing the FWS BiOp and RPA. Further, in May 2010, the court issued Findings of Fact and Conclusions of Law on a motion for preliminary injunction, which confirmed the court's prior NEPA ruling and also determined that plaintiffs were likely to prevail on their claims that FWS violated the federal ESA and the Administrative Procedure Act (APA) in adopting the RPA for delta smelt. Thereafter, the parties filed motions for summary judgment to obtain a final ruling in the cases, and those motions were argued in early July 2010. In March 2011, the court issued a final decision that invalidated the FWS BiOp and RPA in several respects and ordered FWS to prepare a new BiOp. FWS and others appealed that decision to the Ninth Circuit Court of Appeals. In March 2014, the Court of Appeals issued an opinion that reversed the District Court decision and determined that the FWS BiOp and RPA did not violate the ESA or the APA. The Court of Appeals ruled, however, that the Bureau of Reclamation (BOR) must prepare an Environmental Impact Statement under the National Environmental Policy Act (NEPA) to evaluate the effects of the BiOp. To date that NEPA analysis has not been completed, although an Environmental Impact Statement is expected in 2016. In the meantime, FWS, DWR and BOR continue to use the RPA measures as a guideline for restricting SWP and CVP operations to protect delta smelt.

NMFS BiOp Litigation

After issuance of the NMFS BiOp in June 2009, the State Water Contractors and other water agencies filed legal challenges against the BiOp. (The Consolidated Salmon Cases, E.D. Cal. 1:09-CV-1053-OWW-DLB.) In May 2010, the Federal District Court for the Eastern District of California ruled that the federal defendants violated NEPA by failing to analyze the impact of the BiOp and RPA on humans and the human environment.

The court also ruled that plaintiffs were likely to prevail on their claims that NMFS violated the federal ESA and the APA in adopting the RPA. As with the delta smelt litigation, the parties also filed motions for summary judgment to obtain a final ruling in the cases. In September 2011, the court issued a final decision that invalidated the NMFS BiOp and RPA and ordered NMFS to prepare a new BiOp. NMFS and others appealed that decision to the Ninth Circuit Court of Appeals. In December 2014, the Court of Appeals issued an opinion that reversed the District Court decision and held that NMFS's BiOp was sufficient and that NMFS's adoption of the BiOp was not arbitrary and capricious. Similar to the delta smelt case (above), the Court of Appeals ruled that the Bureau of Reclamation (BOR) must prepare an Environmental Impact Statement under NEPA to evaluate the effects of the NMFS BiOp. To date that NEPA analysis has not

been completed. Meanwhile, NMFS, DWR and BOR continue to use the RPA measures as a guideline for restricting SWP and CVP operations to protect listed anadromous species.

Consistency Determination Litigation

Because the delta smelt and salmon species that are the subject of the FWS and NMFS BiOps are also protected under the California Endangered Species Act (CESA), the SWP and CVP are required to obtain take authorization for project operations from the California Department of Fish and Wildlife (DFW, formerly Department of Fish and Game). In July 2009 and September 2009, respectively, DFW issued “consistency determinations” which found that SWP and CVP operations do not violate CESA to the extent that such operations are in compliance with the RPAs set forth in the FWS and NMFS BiOps. Because the consistency determinations are issued under state law, and thus could have remained in effect even if the federal BiOps were overturned, the State Water Contractors and the Kern County Water Agency filed legal challenges against the consistency determinations. Those cases were stayed for years pending the final outcome of The Consolidated Delta Smelt Cases and The Consolidated Salmon Cases.³⁰ In late 2015, the legal challenges against the consistency determinations were dismissed, thus generally the RPAs in the federal BiOps serve as the regulatory framework for take authorization under CESA.

Longfin Smelt Protections

Regulatory actions related to longfin smelt also have the potential to affect the availability and reliability of SWP supplies. In February 2008, longfin smelt were listed as a “candidate” species under CESA, and DFW imposed certain interim restrictions on SWP operations for the protection of longfin smelt and its critical habitat. In February 2009, shortly before longfin smelt were officially listed as a “threatened” species under CESA, DFW issued Incidental Take Permit No. 2081-2009-001-03 (the Permit) to DWR, which imposes various terms and conditions on the ongoing and long-term operations of SWP facilities in the Delta. The operating restrictions under the Permit are based in large part on the restrictions imposed on the SWP by the 2008 FWS BiOp for delta smelt (see above). The resulting water supply reductions under the Permit depend on several variable factors, such as Delta hydrology, migratory and reproductive patterns of longfin smelt, and other factors affecting species abundance in the Delta. Notably, DWR has not indicated whether any particular reductions in SWP exports are likely to result from the Permit. In March 2009, a legal challenge was filed against the Permit.³¹ In February 2014, a settlement was reached and the suit was dismissed. Among other terms, the settlement calls for implementation of a 3-year longfin smelt study program.

³⁰ See, e.g., *State Water Contractors v. Cal. Dept. of Fish and Game*, Sac. Sup. Ct. Case No. 34-2010-80000552; *State Water Contractors v. Cal. Dept. of Fish and Game*, Sac. Sup. Ct. Case No. 34-2010-80000560.

³¹ See *State Water Contractors v. California Dept. of Fish and Game, et al.*, Sac. Sup. Ct. Case No. 34-2009-80000203.

Development of Delta Plan and Delta Flow Criteria

In November 2009, the California Legislature enacted SBx7-1 as part of a comprehensive package related to water supply reliability, ecosystem health, and the Delta.³² Among other things, SBX7-1 creates the Delta Stewardship Council (Council) and directs the Council to develop a management plan for the Delta by January 1, 2012 (the Delta Plan). In May 2013, the Council approved and certified a Final Programmatic Environmental Impact Report (PEIR) for the proposed Delta Plan. Various agencies and organizations have filed legal challenges against the PEIR. (See, *State Water Contractors et al. v. Delta Stewardship Council*, Sacramento County Superior Court, Judicial Council Coordinated Proceeding No. 4758.) The coordinated challenges allege that the Council exceeded its authority under the Sacramento-San Joaquin Delta Reform Act of 2009 and failed to analyze the Plan's impacts under the California Environmental Quality Act.

In May 2016, the Court issued a Statement of Decision addressing the parties' arguments on statutory issues, and dismissing the CEQA claims as moot unless and until the Council adopts a revised Plan and related CEQA document. Specifically, the Court found that the Delta Plan violated the Delta Reform Act, and directed the Council to rescind its Plan-related approvals and revise the Plan and any applicable regulations to: (1) include quantified or otherwise measurable targets associated with achieving reduced Delta reliance, reduced environmental harm from invasive species, restoring more natural flows, and increased water supply reliability, in accordance with the Delta Reform Act; (2) provide a flow policy that includes quantified or otherwise measure targets; and (3) promote options for water conveyance and storage systems. At this time it is not known whether, when, or to what extent the Council may amend the Delta Plan or undertake related actions or further CEQA review. Parties to the case may appeal the trial court decision, and thus the litigation is still considered active.

SBX7-1 also directed the State Board to develop flow criteria for the Delta to protect public trust resources, including fish, wildlife, recreation and scenic enjoyment, and required DFW to identify quantifiable biological objectives and flow criteria for species of concern in the Delta. In August 2010, the State Board adopted Resolution No. 2010-0039 approving its report entitled "Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem" (Flow Criteria). The State Board report concludes that substantially higher flows are needed through the Delta than have occurred in previous decades in order to benefit zooplankton and various fish species.³³ Separately, in September 2010, DFW issued a draft report entitled "Quantifiable Biological Objectives and Flow Criteria for Aquatic and Terrestrial Species of Concern Dependent on the Delta" (DFW Report). The DFW Report is based on similar biological objectives and recommends Delta flows similar to those set forth in the State Board's Flow Criteria.³⁴ Notably, both the State Board and DFW recognize that their recommended flow criteria for the Delta do not balance the public interest or the need to provide an adequate and

³² SBX7-1 became effective February 3, 2010 and adds Division 35 to the California Water Code (commencing with Section 85300). Division 35 is referred to as the Sacramento-San Joaquin Delta Reform Act of 2009

³³ Flow Criteria at 5-8

³⁴ DFW Report at 13.

reliable water supply, and thus the recommendations may not be consistent with the public trust doctrine.³⁵ The State Board and DFW also acknowledge that their recommended flow criteria do not have any regulatory or adjudicatory effect, although they may be used to inform various ongoing processes.³⁶

Public Trust Challenge to Delta Exports

In 2010, environmental and fisheries advocates filed suit in Sacramento County Superior Court alleging that water exports from the Delta violate the public trust doctrine and are unconstitutional. (See, California Water Impact Network v. SWRCB (Sac. County Sup. Ct. Case No. 34-2010-80000653.) The plaintiffs in that case seek to compel the State Board to adopt and enforce flow, salinity, and temperature standards in the Delta. DWR is also a respondent in the case, and State Water Contractors (SWC) have intervened as parties. DWR and the SWC contend that plaintiffs' claims already have been determined by litigation related to the State Board Water Right Decision 1641 that is now final. In 2011, the United States Bureau of Reclamation, which was named as a real party in interest, filed a statement that it will not waive sovereign immunity. The matter is still pending before the trial court.

2.3. Dry-Year Supplies

As stated in the 2015 UWMP, water supply reliability for CLWA, and in turn SCWD and the other retail purveyors within the Santa Clarita Valley, has improved significantly with the development of conjunctive use and groundwater banking. Conjunctive use is the coordinated operation of multiple water supplies to achieve improved supply reliability.

Groundwater banking programs involve storing available SWP surface water supplies during wet years in groundwater basins such as the San Joaquin Valley. Water is stored either directly by surface spreading or injection, or indirectly by supplying surface water to farmers for their use in lieu of their intended groundwater pumping. During water shortages, the stored water is pumped out and conveyed through the California Aqueduct to CLWA as the banking partner, or used by the farmers in exchange for their surface water allocations, which are delivered to CLWA as the banking partner through the California Aqueduct.

CLWA has entered into groundwater banking and water exchange programs as described below and has, in aggregate, more than 140,000 AF of recoverable water outside the local groundwater basin.³⁷

CLWA is a partner in two existing groundwater banking programs, the Semitropic Banking Program and Rosedale-Rio Bravo Water Storage District (RRBWSD) Banking Program as described below. Current operational planning includes use of water stored in these groundwater banking programs for dry-year supply. Accordingly, these supplies are reflected as contributing only to dry-year supply reliability.

³⁵ Flow Criteria at 4; DFW Report at 16.

³⁶ Flow Criteria at 3, 10; DFG Report at ES-4.

³⁷ Descriptions of the groundwater banking programs are based on the 2015 UWMP, Section 3.5.

In 2002, CLWA entered into a temporary storage agreement with Semitropic, and stored an available portion of its Table A supply (24,000 AF) in an account in Semitropic's program. In 2004, 32,522 AF of CLWA's available 2003 Table A supply was stored in a second temporary Semitropic account. In accordance with the terms of CLWA's storage agreements with Semitropic, 90 percent of the banked amount, or a total of 50,870 AF, was recoverable through 2013 to meet CLWA water demands when needed. CLWA executed an amendment for a ten-year extension of each banking agreement with Semitropic in April 2010. After storage withdrawals in 2009, 2010, and 2014, and transfers of 5,000 AF in 2014 for increased recovery capacity, the storage balance available to CLWA was 35,970 AF. As a result, CLWA can withdraw up to 35,970 AF of SWP Table water that is stored in Semitropic to meet Valley demands when needed in dry years.

Semitropic has recently expanded its groundwater banking program to incorporate its Stored Water Recovery Unit (SWRU). In 2015 CLWA entered into an agreement with Semitropic to participate in the SWRU. Under this agreement, the two short-term accounts containing 35,970 AF were transferred into this new program. Under the SWRU agreement, CLWA can store and recover additional water within a 15,000 AF storage account. The term of the Semitropic Banking Program extends through 2035 with the option of a 10 year renewal. CLWA may withdraw up to 5,000 AFY from its account.

CLWA has also entered into a long-term banking agreement with RRBWSD with a total storage capacity of 100,000 AF. Between 2005 and 2012 CLWA delivered sufficient water from the SWP and other supplies to fill its 100,000 AF account. CLWA began storing water in this program in 2005 and has stored water in 2005, 2006, 2007, 2010, 2011, and 2012. In 2012, the maximum storage capacity of 100,000 AF was reached. Withdrawals from the water bank occurred in 2014 and 2015 for a total recovery of 5,822 AF. The water bank was refilled in 2016 leaving 100,000 AF currently available for withdrawal.

CLWA's existing firm withdrawal capacity in the RRBWSD program is 3,000 AFY. To enhance dry-year recovery capacity, in 2015 CLWA in cooperation with RRBWSD and Irvine Ranch Water District initiated construction of additional facilities that are anticipated to be available at the end of 2016 or the beginning of 2017.

Some of the wells constructed for this program have tested above the MCL for arsenic. The project proponents are currently investigating means to modify these well by sealing off higher arsenic zones and implementing blending strategies. With these facilities the firm extraction capacity is estimated to increase to 10,000 AFY even in exceptionally dry conditions such as those experienced in 2014 and 2015. In addition, CLWA has the right under the contract to develop four additional wells which would bring the firm recovery capacity to 20,000 AFY. This additional capacity is anticipated to be available by 2030. In addition to this firm recovery capacity, in moderately dry years Rosedale is required to use up to 20,000 AFY of other available recovery capacity to meet its recovery obligations under the banking agreement.

Short-term water exchanges may also serve as a means to enhance water reliability. In 2011 CLWA entered into two ten-year exchange agreements to enhance the management of its water supplies. CLWA executed a ten-year Two-for-One Water Exchange Program with RRBWSD whereby CLWA can recover one acre-foot of water for each two acre-feet CLWA delivered to RRBWSD (less losses). CLWA delivered 15,602 AF to the program in 2011, delivered another 3,969 AF in 2012 and, after program losses, has about 9,500 AF of recoverable water. Up to

this entire amount may be recovered in a single year when requested by CLWA and when SWP exchange water is available from RRBWSD.³⁸ For a single dry year it was assumed that this supply would not be available to CLWA. For the multiple-dry year periods, it was assumed that the entire amount would be accessible and used sometime during the dry-year period, so the average annual supply during that period would be one fourth of the total available for the four-year period, and one third for the three-year period, through 2021.

CLWA also entered into a ten-year Two-for-One Water Exchange Program with the West Kern Water District (WKWD) in Kern County and CLWA delivered 5,000 AF in 2011, resulting in a recoverable total of 2,500 AF. In 2014, 2,000 AF of water was withdrawn from this exchange program leaving a balance of 500 AF. Up to this entire amount may be recovered in a single year when requested by CLWA and when SWP exchange water is available from WKWD. For a single dry year it was assumed that this supply would not be available to CLWA. For the multiple-dry year periods, it was assumed that the entire amount would be accessible and used sometime during the dry-year period, so the average annual supply during that period would be one fourth of the total available for the four-year period, and one third for the three-year period, through 2021.

As another source of imported water supply, CLWA executed a long-term transfer agreement for 11,000 AFY with BVWSD and RRBWSD. These two districts joined together to develop a program that provides both a firm water supply and a water banking component. Both districts are member agencies of the Kern County Water Agency (KCWA), a SWP contractor and both districts have contracts with KCWA for SWP Table A Amounts. The supply is based on existing long-standing Kern River water rights held by BVWSD, and is delivered by exchange of the two districts' SWP Table A supplies or directly to the California Aqueduct via the Cross Valley Canal. This water supply is firm; that is, the total amount of 11,000 AFY is available in all water year types based on the Kern River water right. CLWA began taking delivery of this supply in 2007 as shown in Table 3-3 of the 2015 UWMP.³⁹

As another source of imported supply, in 2008 CLWA entered into the Yuba Accord Agreement, which allows for the purchase of water from the Yuba County Water Agency through DWR to 21 SWP contractors (including CLWA) and the San Luis and Delta-Mendota Water Authority. Yuba Accord water comes from north of the Delta, and the water purchased under this agreement is subject to losses associated with transporting it through the Delta. These losses can vary from year to year, depending on Delta conditions at the time the water is transported. Under the agreement, an estimated average of up to 1,000 AFY of non-SWP supply (after losses) is available to CLWA in dry years, through 2025. Under certain hydrologic conditions, additional water may be available to CLWA from this program. CLWA received 445 AF from this source in 2014.⁴⁰

³⁸ Descriptions of the water exchange programs are based on the 2015 UWMP, Section 3.4.5.

³⁹ Description of the Long-Term Transfer Agreement with BVWSD and RRBWSD is based on the 2015 UWMP, Section 3.2.2.1.

⁴⁰ Description of the Yuba Accord Agreement is based on the 2015 UWMP, Section 3.2.2.3

These groundwater banking, exchange, and imported supply programs allow CLWA to firm up the imported water component in the Santa Clarita Valley by storing surplus SWP and other water in wet years in groundwater basins outside the Santa Clarita Valley. This allows recovery and importation of that water as needed in dry years to maintain a greater overall amount of imported water to be used conjunctively with local groundwater, further supporting the sustainable use of local groundwater at the rates in the groundwater operating plan.

As noted above, conjunctive use is the purposeful integrated use of surface water and groundwater supplies to maximize water supply from the two sources. CLWA and the local retail water agencies, including SCWD, have been conjunctively utilizing local groundwater and imported surface water since the initial importation of SWP water in 1980. The groundwater banking, exchange, and other water supply programs described above allow CLWA to firm up the imported water component of conjunctive use in the Valley by storing surplus SWP and other water, in wet years, in groundwater basins outside the Valley. This allows recovery and importation of that water as needed in dry years to maintain a greater overall amount of imported surface water to be used conjunctively with local groundwater, further supporting the sustainable use of local groundwater at the rates in the groundwater operating plan.

2.3.1. Written Contracts or Other Proof of Supplies

The following is a list of major reports, studies, agreements, and other actions pertinent to the establishment of dry-year supply rights in the Santa Clarita Valley. The “short title” for each document is provided below and described in further detail in Section 5.0, References.

- SWP Final Delivery Capability Report, July 2015.
- 2009, 2011, 2013 Delivery Reliability Reports.
- 2015 Santa Clarita Valley Water Report, June 2016
- Agreement between Rosedale-Rio Bravo Water Storage District and CLWA for a Water Banking and Exchange Program, November 15, 2005.
- 2003 Point of Delivery Agreement among DWR, CLWA and Kern County Water Agency (Semitropic Groundwater Storage Program) DWR, et al. February 13, 2004.
- 2004 CLWA/Semitropic Groundwater Storage Program Letter Agreement. CLWA, et al. January 15, 2004.
- 2002 Point of Delivery Agreement among DWR, CLWA and Kern County Water Agency (Semitropic Groundwater Storage Program), DWR, et al. December 19, 2002.
- 2002 CLWA/Semitropic Groundwater Storage Program Letter Agreement. CLWA, et al. October 9, 2002.
- 2011 Amendment No. 1 to October 9, 2002 Letter Agreement (CLWA/Semitropic Water Storage District), extending term to October 9, 2022. April 13, 2011.
- 2011 Amendment No. 1 to January 15, 2004 Letter Agreement (CLWA/Semitropic Water Storage District), extending term to January 20, 2024. April 13, 2011.
- Memorandum of Understanding Regarding Pilot Program Between CLWA and Casitas Municipal Water District, The City of San Buenaventura and United Water Conservation District, Use of Flexible Storage Account, Castaic Lake. December 1, 2005.

- First Amendment to Memorandum of Understanding for use of Flexible Storage Account. December 1, 2015.

2.3.2. Permits/Approvals or Other Necessary Regulatory Approvals

The primary dry-year supply documents that have received state or local approvals are listed below:

- 2015 UWMP, June 2016.
- Rosedale-Rio Bravo Water Storage District Water Banking and Exchange Program Draft EIR, August 2005 (SCH No. 2005061157).
- Rosedale-Rio Bravo Water Storage District Water Banking and Exchange Program EIR, certified by CLWA on October 19, 2005.
- Skyline Ranch Final EIR (certified May 2010).
- Groundwater Banking Project (Semitropic Groundwater Banking Program) Negative Declaration, December 2003, and all resolutions and other final actions by CLWA.
- 2014 Facility Capacity Fee Study, CLWA, August 28, 2015.
- Buena Vista/Rosedale-Rio Bravo Water Banking and Recovery Program. Final EIR September 2002.
- Semitropic Groundwater Banking Project, 1994, EIR (SCH No. 1993072024), as supplemented by the Semitropic Stored Water Recovery Unit Supplemental EIR, 2000 (SCH No. 199031100).
- Groundwater Banking Project (Semitropic Groundwater Banking Program) Negative Declaration, August 2002, and all resolutions and other final actions by CLWA.

2.4. Recycled Water

CLWA and the purveyors recognize that recycled water is an important and reliable source of additional water that should be pursued as an integral part of the Valley's water supply portfolio. Recycled water enhances reliability in that it provides an additional source of supply and allows for more efficient utilization of groundwater and imported water supplies. Draft Recycled Water Master Plans for the CLWA service area were completed in 1993 and 2002. These master plans considered various factors affecting recycled water sources, supplies, users and demands so that CLWA could develop a cost-effective recycled water system within its service area. In 2007, CLWA completed CEQA analysis of the 2002 Recycled Water Master Plan (RWMP). This analysis consisted of a Programmatic EIR covering the various phases for a recycled water system as outlined in the RWMP. The Programmatic EIR was certified by the CLWA Board in March 2007. CLWA is in the process of updating the RWMP based on recent developments affecting recycled water sources, supplies, uses and demands. Portions of the draft updated RWMP were made public in connection with the 2015 UWMP process, and the updated RWMP and a new Programmatic EIR are currently being prepared, where the Programmatic EIR has been circulated for public review.

CLWA has constructed Phase I of the 2002 RWMP (Kennedy/Jenks 2002), which is designed to deliver up to 1,700 AFY of water to the VWC service area (Phase 1 as constructed currently

delivers about 450-500 AFY). Deliveries of recycled water began in 2003 for irrigation water supply at a golf course and in roadway median strips. In 2015, recycled water deliveries were 450 AF. Phase 2 is planned to expand recycled water use within Santa Clarita Valley.

Recycled water is available from two existing water reclamation plants operated by the Santa Clarita Valley Sanitation District of Los Angeles County (SCVSD). The primary sources of wastewater to the Saugus and Valencia WRPs are domestic. Both plants are tertiary treatment facilities and produce high quality effluent. A third Valley reclamation plant, the Newhall Ranch WRP, is proposed as part of the Newhall Ranch project. A fourth Valley reclamation plant, the Vista Canyon Water Factory, is proposed as a part of the Vista Canyon Project.

Overall, the current projections estimate that after discharging an instream flow amount of 14,560 AFY of recycled water to the Santa Clara River to protect aquatic species and habitat, up to 17,000 AF of recycled water would be available for beneficial reuse on golf courses, landscaping and other non-potable uses, as set forth in the 2015 UWMP. The majority of recycled water uses are projected to be landscape and golf course irrigation, both of which have high demands in the summer and low demands in the winter. In optimizing the customers served to eliminate the need to provide a backup supply of potable water in the summer, an anticipated 10,054 AFY is planned to be served in 2050. Refer to Section 4.4 and Table 4.3 of the 2015 UWMP for additional detail.

Effluent from the Valencia and Saugus WRPs has historically been discharged to the Santa Clara River (SCR) and must comply with the Upper Santa Clara River Chloride Total Maximum Daily Limit (TMDL) for chloride established by the Los Angeles Regional Water Quality Control Board (LARWQCB). The SCVSD prepared a Chloride Compliance Facilities Plan (Facilities Plan) and Final Environmental Impact Report (FEIR) to meet dual objectives of reducing chloride and increasing the use of recycled water to help offset demands of potable water in the Santa Clarita Valley.

The production, discharge, distribution, and use of recycled water are subject to federal, state and local regulations and can be affected by court decisions. A specific example of how recycled water supplies can be affected by legal and regulatory factors is the recent litigation filed against the SCVSD in *Affordable Clean Water Alliance v. Santa Clarita Valley Sanitation District of Los Angeles* (Los Angeles County Superior Court Case No. BS145869) and *Affordable Clean Water Alliance v. Santa Clarita Valley Sanitation District of Los Angeles* (Los Angeles County Superior Court Case No. BS161742). In those cases the plaintiff alleged that the SCVSD did not adequately analyze whether the amount of recycled water discharged from the Valencia WRP to the SCR would avoid significant environmental impacts to aquatic species and habitat in the SCR. In related decisions issued March 9, 2016 and June 2, 2016 the Los Angeles Superior Court determined that the FEIR requires additional detail and ruled that the SCVSD cannot take further action on its modified chloride compliance project until it completes the additional environmental review.

Section 4.4 of the 2015 UWMP discusses the importance of recycled water and the critical role it has the potential to play in the Santa Clarita Valley. While the trial court decisions above affect the ability of CLWA and the retail water providers to specify at this time exactly how much recycled water will be available from the Valencia WRP, it appears reasonably likely that supplies will be available from that facility once a recycled water discharge amount to the SCR is established according to further environmental and public review. Furthermore, Table 4-3 of

the 2015 UWMP shows that planned recycled water supplies from the Newhall Ranch WRP and the Vista Canyon Water Factory, which will not require discharge to the SCR, will be available to meet a considerable portion of the total projected long-term recycled water demands. As explained in Section 4.4 of the 2015 UWMP, even if recycled water supplies from the Valencia WRP and/or other local WRPs are not available in the amounts identified in Table 4-3 of the 2015 UWMP to meet potential uses because of regulatory or other constraints, other sources of supply available to CLWA and the water purveyors as provided in the 2015 UWMP would be utilized to meet non-potable demands until such time as recycled water supplies may become available.

Recycled water rights in Santa Clarita Valley are documented below.

2.4.1. Written Contracts or Other Proof of Supplies

The following is a list of major reports, studies, agreements, and other actions pertinent to the establishment of recycled water rights in the Santa Clarita Valley. The “short title” for each document is provided below and described in further detail in Section 5.0, References.

- 2015 Santa Clarita Valley Water Report, June 2016
- Recycled Water Master Plan, Draft Report, May 2002.
- CLWA. Recycled Water Master Plan, Administrative Draft (Sections 1-7), January to April 2016, prepared by Kennedy/Jenks Consultants.
- Agreement between the County Sanitation District of Los Angeles County and CLWA, July 24, 1996.

2.4.2. Permits/Approvals or Other Necessary Regulatory Approvals

The primary recycled water-related documents that have received local approvals are listed below:

- 2015 UWMP, June 2016.
- Recycled Water Master Plan Program EIR Notice of Preparation and Initial Study, April 2005.
- 2007 Final Programmatic EIR for the 2002 Draft Recycled Water Master Plan (SCH No. 2005041138).
- Data Document Providing Economic Justification for Proposed Facility Capacity Fees, CLWA, April 19, 2003.
- 1996 Recycled Water Agreement – County Sanitation Districts 26 and 32 of Los Angeles County and CLWA. July 24, 1996.
- Los Angeles Regional Water Quality Control Board Order Nos 87-48 and 87-49.
- Los Angeles Regional Water Quality Control Board. June 2016, Order No. R4-2016-0220 Waste Discharge Requirements and Water Reclamation Requirements and a Monitoring and Reporting Program for Vista Canyon Water Factory.
- Impact Sciences, Inc. April 2011, Vista Canyon Final EIR prepared for City of Santa Clarita.

3. Water Demand and Supply Summary

As discussed above, the projected total water demand for the Skyline Ranch Project is 1,540 AFY in an average/normal year. Project water demand is estimated to increase by approximately ten percent in a dry year to a total of 1,694 AFY. To meet this demand, water would be provided to the Project by SCWD. Water sources to be used by SCWD include a combination of SWP and other water supplies delivered through CLWA and local groundwater resources in the Alluvial aquifer and the Saugus Formation. As fully set forth above, the amount delivered from each source varies year-to-year due to statewide and local hydrologic conditions and other factors.

3.1. Water Demand

In assessing whether a sufficient water supply is available, SB 221 requires the identification of the projected demand associated with the proposed subdivision, in addition to the water provider's other existing and planned future uses, including but not limited to agricultural and industrial demands. (Govt. Code § 66473.7(a) (2).) Table 8, below, summarizes the retail purveyors' projected water demands through 2050, as set forth in the most recently adopted regional 2015 UWMP. These demands include a conservative projection of all existing and planned future uses in the Santa Clarita Valley. Table 9, below, summarizes the current and projected water demands for SCWD by customer type. Notably, the demands in Tables 8 and 9 already include and account for the water needed to serve the proposed Skyline Ranch Project.

Table 8
Summary of Projected Water Demands (AF) ^{(a) (b) (c) (d) (e) (f) (g)}

	2020	2025	2030	2035	2040	2045	2050	Annual Increase
Water Demands								
LACWWD 36 ^(f)	2,300	2,700	3,100	3,500	3,900	4,300	4,700	2.5%
NCWD	10,100	10,700	11,200	11,800	12,600	13,400	14,200	1.2%
SCWD	28,400	29,100	29,900	30,800	32,400	33,900	36,000	0.8%
VWC ^(e)	28,100	32,100	36,600	40,000	39,600	39,300	39,000	1.1%
Total Demand	68,900	74,600	80,800	86,100	88,500	90,900	93,900	1.1%

Source: 2015 UWMP, Table 2-2

Notes:

- (a) Values rounded to the nearest hundred.
- (b) From MWM 2016.
- (c) Reflects existing and projected demands in CLWA service area only. CLWA's Annexation Policy requires annexing parties to provide additional fully reliable supplies.
- (d) Demands exclude non-purveyor demands. Similarly, supplies evaluated in this UWMP exclude non-purveyor supplies.
- (e) Demands include savings from plumbing code and standards and active conservation as assumed in the 2015 WUESP.
- (f) LACWWD 36 future demand was based on a growth projection factor and not on land use as was done for the three other purveyors. LACWWD 36 is included for purposes of providing regional completeness; however, it is not required to prepare an UWMP.
- (g) Refer to GSI 2016 for detail on specific future developments included in the analysis.

Table 9
SCWD Current and Projected Water Deliveries by Customer Type ^{(a) (b)}

Year	Water Use Sectors	Single-Family Residential	Multi-Family Residential	Commercial	Industrial	Institutional	Irrigation ^(c)	Other	Non-Revenue Water ^(d)	Total
2015	No. of accounts	23,132	4,713	708	19	111	994	387	-	30,064
	Deliveries (AF)	11,978	2,579	974	87	579	3,328	413	1,845	21,783
2020	No. of accounts	22,900	5,400	1,500	0	100	1,100	300	-	31,300
	Deliveries (AF)	12,500	3,600	1,600	400	400	7,800	0	2,100	28,400
2025	No. of accounts	24,000	5,900	1,700	0	100	1,200	400	-	33,300
	Deliveries (AF)	12,300	3,700	1,700	400	400	8,400	0	2,200	29,100
2030	No. of accounts	25,100	6,500	1,900	0	100	1,300	400	-	35,300
	Deliveries (AF)	12,100	3,900	1,900	500	400	8,800	0	2,300	29,900
2035	No. of accounts	26,200	7,000	2,200	0	200	1,500	400	-	37,500
	Deliveries (AF)	12,000	4,100	2,100	500	400	9,300	0	2,400	30,800
2040	No. of accounts	27,300	7,600	2,400	0	200	1,600	400	-	39,500
	Deliveries (AF)	12,100	4,300	2,300	500	500	10,000	0	2,700	32,400
2045	No. of accounts	28,400	8,200	2,600	100	200	1,700	400	-	41,600
	Deliveries (AF)	12,200	4,600	2,500	600	500	10,800	0	2,700	33,900
2050	No. of accounts	29,600	8,700	2,800	100	200	1,800	500	-	43,700
	Deliveries (AF)	12,900	4,900	2,700	600	500	11,500	0	2,900	36,000

Source: 2015 UWMP, Table 2-5

Notes:

- (a) Values rounded to the nearest hundred.
- (b) 2015 values based on actual use. Projections for 2020 to 2050 from MWM 2016.
- (c) As discussed in the 2015 UWMP Section 4, a portion of future irrigation demands may be met with recycled water to the extent recycled water supplies are available, with a corresponding reduction in potable water demand.
- (d) NRW may include unbilled authorized consumption as well as water that is "lost" before it reaches the customer. Losses can be real losses (through leaks, sometimes also referred to as physical losses) or apparent losses (for example through theft or metering inaccuracies).

3.2. Water Supplies — Historic and Existing Sources

SCWD, in conjunction with CLWA, has existing water entitlements, rights, and contracts to meet demand as needed over a 20-year horizon and beyond, and has committed sufficient capital resources and planned investments in various water programs and facilities to serve all of its existing and planned future customers. SCWD also has identified an operational strategy combined with a prudent and flexible management approach to ensure water supply reliability.

In addition to the most recently adopted regional 2015 UWMP, the 2015 Santa Clarita Valley Water Report provides a detailed summary of the local and imported water supplies used to meet water demands in the Santa Clarita Valley over the previous 35-year period (1980-2015). (See Govt. Code § 66473.7(a) (2) (A).) The 2015 SCV Water Report also analyzed the historical availability and use of water by each retail purveyor (SCWD, Los Angeles County Waterworks District No. 36, NCWD, and VWC), and for all agricultural, industrial and other users in the Valley, for the same 35-year period. As shown in Table 10 below, the 2015 SCV Water Report has demonstrated that total water demand has linearly increased over the past 35 years, however, demand has plateaued since 2009 due to economic recession, drought and water conservation. The demand growth has been met with increasing importation of SWP water, while groundwater pumping has remained relatively consistent over the years.

Based on SCWD's water demand factors, SCWD has estimated that the water demand for the Skyline Ranch Project is 1,540 AFY at build-out in an average/normal year. Project water demand is projected to increase by approximately ten percent in a dry year to a total of 1,694 AFY.

Table 10**Total Water Supply Utilization for Municipal, Agricultural and Other Uses (Ac-Ft)**

YEAR	SWP⁽¹⁾⁽²⁾	ALLUVIUM	SAUGUS	RECYCLED	TOTAL
1980	1,126	31,463	4,589	-	37,178
1981	5,817	30,790	4,970	-	41,577
1982	9,659	21,868	4,090	-	35,617
1983	9,185	20,286	3,852	-	33,323
1984	10,996	27,318	4,449	-	42,763
1985	11,823	25,347	4,715	-	41,885
1986	13,759	24,205	5,485	-	43,449
1987	16,285	22,642	5,561	-	44,488
1988	19,033	21,648	6,928	-	47,609
1989	21,618	23,721	7,759	-	53,098
1990	21,613	23,876	8,861	-	54,350
1991	7,968	27,187	14,917	-	50,072
1992	14,898	27,591	10,924	-	53,413
1993	13,836	30,126	10,610	-	54,572
1994	14,700	33,133	12,025	-	59,858
1995	17,002	34,464	8,560	-	60,026
1996	18,873	38,438	8,186	-	65,497
1997	23,215	39,599	7,745	-	70,559
1998	20,266	36,648	5,555	-	62,469
1999	27,302	43,406	3,716	-	74,424
2000	32,582	39,937	4,080	-	76,599
2001	35,369	37,589	4,140	-	77,098
2002	41,763	38,276	5,160	-	85,199
2003	44,416	33,599	4,207	50	82,273
2004	47,205	33,757	6,503	420	87,885
2005	37,997	38,648	6,453	418	83,516
2006	40,048	43,061	7,312	419	90,840
2007	45,151	38,773	7,685	470	92,079
2008	41,705	41,716	6,918	311	90,650
2009	38,546	39,986	7,678	328	86,538
2010	30,578	41,159	8,092	336	80,165
2011	33,592	40,748	5,531	373	80,244
2012	38,514	40,701	5,763	428	85,406
2013	46,389	36,892	5,930	400	89,611
2014	35,595	36,896	8,098	474	81,063

2015	27,109	30,692	8,319	450	66,570
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Source: 2015 Santa Clarita Valley Report Table 2-3

Notes:

- (1) Reflects SWP through 2006; includes imported water from SWP and Buena Vista WSD Agreement beginning in 2007.
- (2) In January 2011, CLWA began operation of its Saugus Formation groundwater containment project. After treatment for perchlorate removal, that water was blended with treated imported water and delivered to the Purveyors through the CLWA distribution system. As such, production from Saugus 1 and Saugus 2 are included in the SWP utilization.

Provided below is a summary of water supply and demand projections presented in the 2015 UWMP that also address certain information required under SB 221 for the Skyline Ranch Project. The analyses presented in the following tables verify the availability of water supply for the Skyline Ranch Project, in addition to all existing and planned future uses in the SCWD service area over a 35-year horizon (even though SB 221 only requires a 20-year evaluation) in average/normal years, a dry-year, and in multiple-dry years.

Furthermore, while not required by SB 221, as a conservative measure this WSV demonstrates that sufficient water supplies will be available to meet the projected water demands associated with the proposed Project during normal, single-dry, and multiple-dry years over a 35-year horizon, in addition to existing and planned future uses (including agricultural and industrial uses) throughout the entire Santa Clarita Valley. In addition, while not required by SB 221, as a conservative measure, this WSV includes an assessment of two different multiple-dry year periods: a four-year dry period and a three-year dry period.

3.2.1. Current and Planned Water Supplies

Table 11, below, summarizes the existing and planned water supplies available to CLWA, and in turn to SCWD. Existing water resources include wholesale SWP supplies, local groundwater, recycled water, and existing groundwater banking and other imported programs. Planned supplies include new groundwater production, development of additional recycled water supplies, and additional banking programs. The distribution of water supplies presented in Table 11 does not present an allocation of water rights among the retail purveyors, and is not intended to be an operational plan for how supplies would be used in a particular year or for a particular project. Rather, the water supplies in Table 11 identify the complete range of water supplies available under a range of hydrologic conditions over a 20-year projection and beyond. Diversity of supply allows CLWA, SCWD, and other retail purveyors the option of drawing on multiple sources of supply in response to changing conditions such as varying climatic conditions (average/normal years, single dry years, multiple dry years), natural disasters, and potential water quality issues with substances such as perchlorate and/or other constituents.

Local and imported water resources in the Santa Clarita Valley are managed cooperatively between CLWA and the purveyors.

It is the stated goal of CLWA, SCWD, and the other retail water purveyors to deliver a reliable and high quality water supply for their customers, even during dry periods. Based on conservative water supply and demand assumptions over the next 35 years in combination with conservation of non-essential demand during certain dry years, the water supply plan described in the 2015 UWMP successfully achieves this goal.

Table 11
Summary of Current and Planned Water
Supplies and Banking Programs (AF)^(a)

	2015	2020	2025	2030	2035	2040	2045	2050
Existing Supplies								
Existing Groundwater ^(b)								
Alluvial Aquifer	24,100	24,100	24,100	24,100	24,100	24,100	24,100	24,100
Saugus Formation	7,445	7,445	7,445	7,445	7,445	7,445	7,445	7,445
Total Groundwater	31,545	31,545	31,545	31,545	31,545	31,545	31,545	31,545
Recycled Water ^(c)								
Total Recycled	450	450	450	450	450	450	450	450
Imported Water								
State Water Project ^(d)	59,000	58,800	58,500	58,300	58,100	58,100	58,100	58,100
Flexible Storage Accounts ^(e)	6,060	6,060	6,060	4,680	4,680	4,680	4,680	4,680
Buena Vista-Rosedale ^(f)	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land ^(g)	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607
Yuba Accord Water ^(h)	1,000	1,000	1,000	-	-	-	-	-
Total Imported	78,667	78,467	78,167	75,587	75,387	75,387	75,387	75,387
Existing Banking and Exchange Programs								
Rosedale Rio-Bravo Bank ⁽ⁱ⁾	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Semitropic Bank ^(j)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	-
Semitropic - Newhall Land Bank ^(k)	4,950	4,950	4,950	4,950	4,950	4,950	4,950	4,950
Rosedale Rio-Bravo Exchange ^(k)	9,500	9,500	-	-	-	-	-	-
West Kern Exchange ^(k)	500	500	-	-	-	-	-	-
Total Bank/Exchange	22,950	22,950	12,950	12,950	12,950	12,950	12,950	7,950
Total Existing Supplies	134,412	133,412	123,112	120,532	120,332	120,332	120,332	115,332
Planned Supplies								
Future Groundwater ^(l)								
Alluvial Aquifer ^(m)	-	2,000	4,000	5,000	7,000	7,000	7,000	7,000
Saugus Formation (Restored) ⁽ⁿ⁾	-	3,230	3,230	3,230	3,230	3,230	3,230	3,230
Saugus Formation (New) ^(o)	-	-	-	-	-	-	-	-
Total Groundwater	-	5,230	7,230	8,230	10,230	10,230	10,230	10,230
Recycled Water ^(p)								
Total Recycled	-	565	5,156	7,627	9,604	9,604	9,604	9,604
Planned Banking Programs								
Rosedale Rio-Bravo Bank ^(q)	-	7,000	7,000	17,000	17,000	17,000	17,000	17,000
Additional Bank ^(r)	-	-	-	-	-	-	-	5,000

Total Planned Supplies	7,000	7,000	17,000	17,000	17,000	17,000	22,000
Total Banking	-	7,000	7,000	17,000	17,000	17,000	17,000
	-	12,795	19,386	32,857	36,834	36,834	41,834

Source: 2015 UWMP, Table 3-1

Notes:

- (a) The values shown under "Existing Supplies" and "Planned Supplies" are projected to be available in average/normal years to CLWA and the retail water purveyors. The values shown under "Existing Banking and Exchange Programs" and "Planned Banking Programs" are the maximum capacity of program withdrawals, and would typically be used only during dry years.
- (b) Existing groundwater supplies represent the quantity of groundwater anticipated to be pumped with existing wells. As indicated in Tables 4 and 5, and in Tables 3-4 and 3-5 of the 2009 Groundwater Basin Yield Analysis, individual purveyors may have well capacity in excess of quantities shown in this table. As indicated in Table 3-10 of the 2015 UWMP, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 2.
- (c) Existing recycled water is actual use in 2015 (refer to 2015 UWMP Table 4-4). CLWA currently has 1,600 AFY under contract.
- (d) SWP supplies are based on average deliveries from DWR's 2015 DCR.
- (e) Includes both CLWA and Ventura County entities flexible storage accounts. Extended term of agreement with Ventura County entities expires after 2025.
- (f) Distribution of Buena Vista Supply reflects (1) 500 AF of supply dedicated to the pending Tesoro Del Valley annexation into CLWA and NCWD beginning in 2020, and (2) 2,500 AF dedicated to the pending Legacy Village annexation into CLWA and VWC beginning 2035. Prior to these demands developing the entire 11,000 AF of this supply would be available to the entire CLWA service area. Should these developments not occur, the water would continue to be available to the entire CLWA service area. If these developments occur but do not use all of the amounts reserved for them in any year or years, the remaining supply would be available to the entire CLWA service area.
- (g) Existing Newhall Land supply committed under approved Newhall Ranch Specific Plan. Assumed to be transferred to CLWA or VWC during Newhall Ranch development and available for annual purchase prior to that.
- (h) Supply shown is amount available in dry periods, after delivery losses. This supply would typically be used only during dry years and is available through 2025.
- (i) Supplies shown are annual amounts that can be withdrawn using existing firm withdrawal capacity and would typically be used only during dry years.
- (j) Existing Newhall Land supply. Assumed to be transferred to CLWA or VWC during Newhall Ranch development, with firm withdrawal capacity made available to CLWA prior to that.
- (k) Supplies shown are totals recoverable under the exchange and would typically be recovered only during dry years.
- (l) Planned groundwater supplies represent new groundwater well capacity that may be required by an individual purveyor's production objectives in the Alluvial Aquifer and the Saugus Formation. When combined with existing purveyor and non-purveyor groundwater supplies, total groundwater production remains within the sustainable ranges identified in Table 3-8 of 2009 Groundwater Basin Yield Analysis. As indicated in Table 3-10 of the 2015 UWMP, existing and planned groundwater pumping remain within the basin operating plan shown on Table 2.
- (m) Represents a shift in current agricultural pumping by Newhall Land and Farming to VWC due to the development of Newhall Ranch.
- (n) VWC Well 201 is planned to be returned to service by 2017 with treatment under a permit from the DDW.
- (o) Up to four new and replacement wells are planned to provide additional dry-year supply and would typically be used only during dry years.
- (p) Planned recycled water is total projected recycled water demand from 2015 UWMP Table 4-3 less existing use. Recycled water demand projection is based on implementation of complete build-out system described in the RWMP Update and reflects demands that can cost-effectively be served. Refer to 2015 UWMP Section 4, including Section 4.4, for further discussion and information regarding factors having the potential to affect the reliability of recycled water supplies.
- (q) Firm withdrawal capacity under existing Rosedale Rio-Bravo Banking Program to be expanded by 7,000 AFY by 2017 (for a combined total of 10,000 AFY) and an additional 10,000 AFY by 2030.
- (r) Additional banking program with firm withdrawal capacity of 5,000 AFY by 2050.

The subject of perchlorate contamination and its impact on groundwater supplies was extensively discussed in the 2010 UWMP, and updated in the 2015 UWMP. The source of the contamination is believed to be the Whittaker-Bermite property located in the center of the Santa Clarita Valley and used as a munitions manufacturing facility for over 50 years. Significant progress has been made toward characterizing the extent of perchlorate contamination, along with implementing necessary measures for on-site and off-site containment and treatment. This WSV takes into account the impact of perchlorate on water supply operations in the Santa Clarita Valley, while the planning, design, and construction of perchlorate treatment, containment, and other restoration activities are implemented. For additional information on this topic, please refer to the 2015 Santa Clarita Valley Water Report, dated June 2016, Section 3.5, and the 2015 UWMP, Chapters 3 and 5, all of which discuss the relationship between available water supplies and groundwater quality issues.

3.2.2 Average/Normal Year Supplies and Demand

Table 12, below, summarizes water supplies available to CLWA, SCWD, and the other retail water purveyors to meet demand over a 35-year planning period during an average/normal year. As presented in Table 12, water supplies are broken down into existing and planned water supply sources, including wholesale SWP water, local supplies, transfers, banking, and other imported water supply programs, and development of additional recycled water supplies. The demands shown in Table 12 include reductions from projects passive conservation savings, and both with and without active conservation savings.

**Table 12
Projected Average/Normal Year Supplies and Demands (AF)**

	2020	2025	2030	2035	2040	2045	2050
Existing Supplies							
Existing Groundwater ^(a)							
Alluvial Aquifer	24,100	24,100	24,100	24,100	24,100	24,100	24,100
Saugus Formation	7,445	7,445	7,445	7,445	7,445	7,445	7,445
Total	31,545	31,545	31,545	31,545	31,545	31,545	31,545
Groundwater							
Recycled Water ^(b)							
Total Recycled	450	450	450	450	450	450	450
Imported Water							
State Water Project ^(c)	58,800	58,500	58,300	58,100	58,100	58,100	58,100
Flexible Storage Accounts ^(d)	-	-	-	-	-	-	-
Buena Vista-Rosedale ^(e)	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land ^(f)	1,607	1,607	1,607	1,607	1,607	1,607	1,607
Yuba Accord ^(g)	-	-	-	-	-	-	-
Total Imported	71,407	71,107	70,907	70,707	70,707	70,707	70,707
Banking and Exchange Programs ^(e)							
Rosedale Rio-Bravo Bank	-	-	-	-	-	-	-
Semitropic Bank	-	-	-	-	-	-	-
Semitropic - Newhall Land Bank	-	-	-	-	-	-	-
Rosedale Rio-Bravo Exchange	-	-	-	-	-	-	-
West Kern Exchange	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-
Bank/Exchange							
Total Existing Supplies	103,402	103,102	102,902	102,702	102,702	102,702	102,702
Planned Supplies							
Future Groundwater ^(g)							
Alluvial Aquifer ^(h)	2,000	4,000	5,000	7,000	7,000	7,000	7,000
Saugus Formation (Restored) ⁽ⁱ⁾	3,230	3,230	3,230	3,230	3,230	3,230	3,230
Saugus Formation (New) ^(j)	-	-	-	-	-	-	-
Total Groundwater	5,230	7,230	8,230	10,230	10,230	10,230	10,230
Recycled Water ^(k)							

Total Recycled	565	5,156	7,627	9,604	9,604	9,604	9,604
Planned Banking Programs^(e)							
Rosedale Rio-Bravo Bank	-	-	-	-	-	-	-
Additional Bank	-	-	-	-	-	-	-
Total Banking	-	-	-	-	-	-	-
Total Planned Supplies	5,795	12,386	15,857	19,834	19,834	19,834	19,834
Total Existing and Planned Supplies	109,197	115,488	118,759	122,536	122,536	122,536	122,536
Demands^(f)							
Demand w/ Plumbing Code Savings	76,700	84,800	92,700	100,000	103,400	106,800	110,400
Demand w/ Plumbing Code savings and Active Conservation	68,900	74,600	80,800	86,100	88,500	90,900	93,900

Source: 2015 UWMP, Table 6-2

Notes:

- (a) Existing groundwater supplies represent the quantity of groundwater anticipated to be pumped with existing wells. As indicated in Tables 4 and 5, and in Tables 3-4 and 3-5 of the 2009 Groundwater Basin Yield Analysis, individual purveyors may have well capacity in excess of quantities shown in this table. As indicated in the 2015 UWMP Table 3-10, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 2.
- (b) Existing recycled water is actual use in 2015.(refer to 2015 UWMP Table 4-4)
- (c) SWP supplies from 2015 UWMP Table 3-2, based on average deliveries from 2015 DCR.
- (d) Not needed in average/normal years.
- (e) Distribution of Buena Vista Supply reflects (1) 500 AF of supply dedicate to the pending Tesoro Del Valley annexation into CLWA and NCWD beginning in 2020, and (2) 2,500 AF dedicated to the pending Legacy Village annexation into CLWA and VWC beginning 2035. Prior to these demands developing the entire 11,000 AF of this supply would be available to the entire CLWA service area. Should these developments not occur, the water would continue to be available to the entire CLWA service area. If these developments occur but do not use all of the amounts reserved for them in any year or years, the remaining supply would be available to the entire CLWA service area.
- (f) Existing Newhall Land supply committed under approved Newhall Ranch Specific Plan. Assumed to be transferred to CLWA or VWC during Newhall Ranch development and available for annual purchase prior to that.
- (g) Planned groundwater supplies represent new groundwater well capacity that may be required by an individual purveyor's production objectives in the Alluvial Aquifer and the Saugus Formation. As indicated in 2015 UWMP Table 3-10, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 2.
- (h) Represents a shift in current agricultural pumping by Newhall Land and Farming to VWC due to the development of Newhall Ranch.
- (i) VWC Well 201 is planned to be returned to service by 2017 with treatment under a permit from the DDW.
- (j) Up to four new and replacement wells are planned to provide additional dry-year supply and would typically be used only during dry years.
- (k) Planned recycled water is total projected recycled water demand from 2015 UWMP Table 4-3 less existing use. Refer to 2015 UWMP Section 4, including Section 4.4, for further discussion and information regarding factors having the potential to affect the availability of recycled water supplies.
- (l) Demands are Regional Summary demands from 2015 UWMP Table 2-28.

3.2.3. Single Dry-Year Supplies and Demand

The water supplies and demands for CLWA's service area over the 35-year planning period were analyzed in the event that a single-dry year occurs, similar to the drought that occurred in California in 1977. Table 13, below, summarizes the existing and planned supplies available to meet demands during a single-dry year. The demand during dry years was assumed to increase by ten percent. The demands include reductions from projected passive conservation savings, and both with and without active conservation savings. As shown in Table 13, CLWA and the retail purveyors (including SCWD) have adequate supplies to meet all service area existing and projected demands during a single-dry year through 2050.

In addition, please see Appendix C to the 2015 UWMP for the breakdown by retail purveyor of supplies available to meet demand over the 2015 UWMP 35-year planning horizon during a single-dry year. This information responds to the County DMS criteria for determining an acceptable level of water supply by retail purveyor (SCWD) in a single-dry year.

Specifically, Appendix C of the 2015 UWMP, Tables C-4 and C-5 reflect the single-dry year existing and planned total water supplies broken down by retail purveyor, and Table C-6 compares single-dry year demands to total supplies by retail purveyor, and shows that in a single-dry year, SCWD's total existing and planned supplies are greater than demands from 2020 through 2050.

**Table 13
Projected Single-Dry Year Supplies and Demands (AF)**

	2020	2025	2030	2035	2040	2045	2050
Existing Supplies							
Existing Groundwater ^(a)							
Alluvial Aquifer	20,350	20,350	20,350	20,350	20,350	20,350	20,350
Saugus Formation	19,865	19,865	19,865	19,865	19,865	19,865	19,865
Total Groundwater	40,215	40,215	40,215	40,215	40,215	40,215	40,215
Recycled Water ^(b)							
Total Recycled	450	450	450	450	450	450	450
Imported Water							
State Water Project ^(c)	4,800	4,800	4,800	4,800	4,800	4,800	4,800
Flexible Storage Accounts ^(d)	6,060	6,060	4,680	4,680	4,680	4,680	4,680
Buena Vista-Rosedale ^(e)	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land ^(f)	1,607	1,607	1,607	1,607	1,607	1,607	1,607
Yuba Accord ^(f)	-	-	-	-	-	-	-
Total Imported	23,467	23,467	22,087	22,087	22,087	22,087	22,087
Banking and Exchange Programs							
Rosedale Rio-Bravo Bank ^(g)	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Semitropic Bank ^(h)	5,000	5,000	5,000	5,000	5,000	5,000	-
Semitropic - Newhall Land Bank ^(j)	4,950	4,950	4,950	4,950	4,950	4,950	4,950
Rosedale Rio-Bravo Exchange ^(k)	-	-	-	-	-	-	-
West Kern Exchange ^(k)	-	-	-	-	-	-	-
Total Bank/Exchange	12,950	12,950	12,950	12,950	12,950	12,950	7,950
Total Existing Supplies	77,082	77,082	75,702	75,702	75,702	75,702	70,702
Planned Supplies							
Future Groundwater ^(l)							
Alluvial Aquifer ^(m)	2,000	4,000	5,000	7,000	7,000	7,000	7,000
Saugus Formation (Restored) ⁽ⁿ⁾	3,775	3,775	3,775	3,775	3,775	3,775	3,775
Saugus Formation (New) ^(o)	9,560	9,560	9,560	9,560	9,560	9,560	9,560
Total Groundwater	15,335	17,335	18,335	20,335	20,335	20,335	20,335
Recycled Water ^(p)							
Total Recycled	565	5,156	7,627	9,604	9,604	9,604	9,604
Planned Banking Programs							
Rosedale Rio-Bravo Bank ^(q)	7,000	7,000	17,000	17,000	17,000	17,000	17,000

Additional Bank ^(v)	-	-	-	-	-	5,000
Total Banking	7,000	7,000	17,000	17,000	17,000	22,000
Total Planned Supplies	22,900	29,491	42,962	46,939	46,939	51,939
Total Existing and Planned Supplies	99,982	106,573	118,664	122,641	122,641	122,641
Demands⁽⁶⁾						
Demand w/ Plumbing Code Savings	84,400	93,300	102,000	110,000	113,700	121,400
Demand w/ Plumbing Code Savings and Active Conservation	75,800	82,100	88,900	94,700	97,400	103,300

Source: 2015 UWMP, Table 6-3

Notes:

- (a) Existing groundwater supplies represent the quantity of groundwater anticipated to be pumped with existing wells. As indicated in Tables 4 and 5 and Tables 3-4 and 3-5 of the 2009 Groundwater Basin Yield Analysis, individual purveyors may have well capacity in excess of quantities shown in this table. As indicated in the 2015 UWMP Table 3-11, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 2.
- (b) Existing recycled water is actual use in 2015 (refer to 2015 UWMP Table 4-4)
- (c) SWP supplies from Table 6, based on worst case actual allocation of 2014.
- (d) Includes both CLWA and Ventura County entities flexible storage accounts. Extended term of agreement with Ventura County entities expires after 2025.
- (e) Distribution of Buena Vista Supply reflects (1) 500 AF of supply dedicate to the pending Tesoro Del Valley annexation into CLWA and NCWD beginning in 2020, and (2) 2,500 AF dedicated to the pending Legacy Village annexation into CLWA and VWC beginning 2035. Prior to these demands developing the entire 11,000 AF of this supply would be available to the entire CLWA service area. Should these developments not occur, the water would continue to be available to the entire CLWA service area. If these developments occur but do not use all of the amounts reserved for them in any year or years, the remaining supply would be available to the entire CLWA service area.
- (f) Existing Newhall Land supply committed under approved Newhall Ranch Specific Plan. Assumed to be transferred to CLWA or VWC during Newhall Ranch development and available for annual purchase prior to that.
- (g) For single dry year, it was assumed that no water would be available under Yuba Accord.
- (h) CLWA has an existing firm withdrawal capacity of 3,000 AFY and a storage capacity of 100,000 AF. There is currently 94,178 AF of recoverable water in storage.
- (i) CLWA has a maximum firm withdrawal capacity of 5,000 AFY and a storage capacity of 15,000 AF. Additionally, CLWA has 35,970 AF of recoverable water stored which may be recovered using this withdrawal capacity.
- (j) Newhall Land has a maximum withdrawal capacity of 4,950 AFY and a storage capacity of 55,000 AF. At the end of 2015 there was 32,507 AF of recoverable water. This is an existing Newhall Land supply, assumed to be transferred to CLWA or VWC during Newhall Ranch development, with firm withdrawal capacity made available to CLWA prior to that. Delivery of stored water from this program is assumed available to VWC.
- (k) Exchange recovery assumed to be unavailable in single dry year. Term of exchange program is through 2021.
- (l) Planned groundwater supplies represent supplies from new groundwater wells that may be required by an individual purveyor's production objectives in the Alluvial Aquifer and the Saugus Formation, including 3,775 AFY of restored production from VWC Well 201 and approximately 9,560 AFY from replacement and new Saugus Formation wells. When combined with existing purveyor and non-purveyor groundwater supplies, total groundwater production is consistent with the 1977 single dry-year levels identified in Table 3-8 of the 2009 Groundwater Basin Yield Analysis. As indicated in 2015 UWMP Table 3-11, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 2.
- (m) Represents a shift in current agricultural pumping by Newhall Land and Farming to VWC due to the development of Newhall Ranch.
- (n) VWC Well 201 is planned to be returned to service by 2017 with treatment under a permit from the DDW.
- (o) Up to four new and replacement wells are planned to provide additional dry-year supply and would typically be used only during dry years.
- (p) Planned recycled water is total projected recycled water demand from 2015 UWMP Table 4-3 less existing use. Refer to 2015 UWMP Section 4, including Section 4.4, for further discussion and information regarding factors having the potential to affect the availability of recycled water supplies.

- (q) Firm withdrawal capacity under existing Rosedale Rio-Bravo Banking Program to be expanded by 7,000 AFY by 2017 (for a total of 10,000 AFY) and an additional 10,000 AFY by 2030.
- (r) Additional banking program with firm withdrawal capacity of 5,000 AFY by 2050.
- (s) Demands are Regional Summary demands from 2015 UWMP Table 2-28. Includes a 10 percent increase in demand during dry years.

3.2.4. Multiple Dry-Year Supplies and Demand

The water supplies and demands for the Santa Clarita water suppliers were analyzed over the 35-year planning period in the event that a four-year dry period occurs, similar to the drought that occurred during the years 1931 through 1934, as well as a three-year dry period, similar to the drought that occurred during the years 1990 through 1992. Tables 14 and 15, below, summarize the existing and planned water supplies available to CLWA, SCWD, and the other retail water purveyors to meet demands during a four-year dry period and a three-year dry period, respectively. The demand during dry years was assumed to increase by ten percent. During prolonged dry periods, experience indicates that a reduction in demand of ten percent is achievable through implementation of conservation best management practices. The demands shown include reductions from projected passive conservation savings, and both with and without active conservation savings. As shown in Tables 14 and 15, CLWA and the retail purveyors have adequate supplies to meet all service area existing and projected demands during multiple-dry years through 2050.

In addition, please see Appendix C to the 2015 UWMP for the breakdown by retail purveyor of supplies available to meet demand over the 2015 UWMP 35-year planning horizon during multiple-dry years. This information responds to the County DMS criteria for determining an acceptable level of water supply by retail purveyor (SCWD) in multiple-dry years.

Specifically, Appendix C of the 2015 UWMP, Tables C-7A and C-7B reflect the existing water supplies for four-year and three-year dry periods, respectively, broken down by retail purveyor. Tables C-8A and C-8B reflect the planned and total supplies for four-year and three-year periods, respectively. Tables C-9A and C-9B compares the four-year and three-year dry period demands to total supplies by retail purveyor, respectively. Tables C-9A and C-9B shows that in multiple-dry years, SCWD's total existing and planned supplies exceed demand from 2020 through 2050

Table 14
Projected Four-Year Dry Period Supplies and Demands (AF)

	2020	2025	2030	2035	2040	2045	2050
Existing Supplies							
Existing Groundwater ^(a)							
Alluvial Aquifer	20,350	20,350	20,350	20,350	20,350	20,350	20,350
Saugus Formation	15,825	15,825	15,825	15,825	15,825	15,825	15,825
Total Groundwater	36,175	36,175	36,175	36,175	36,175	36,175	36,175
Recycled Water ^(b)							
Total Recycled	450	450	450	450	450	450	450
Imported Water							
State Water Project ^(c)	31,400	31,400	31,400	31,400	31,400	31,400	31,400
Flexible Storage Accounts ^(d)	1,515	1,515	1,170	1,170	1,170	1,170	1,170
Buena Vista-Rosedale ^(e)	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land ^(f)	1,607	1,607	1,607	1,607	1,607	1,607	1,607
Yuba Accord ^(g)	1,000	1,000	-	-	-	-	-
Total Imported	46,522	46,522	45,177	45,177	45,177	45,177	45,177
Banking and Exchange Programs							
Rosedale Rio-Bravo Bank ^(h)	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Semitropic Bank ⁽ⁱ⁾	5,000	5,000	5,000	5,000	5,000	5,000	-
Semitropic - Newhall Land Bank ^(j)	4,950	4,950	4,950	4,950	4,950	4,950	4,950
Rosedale Rio-Bravo Exchange ^(k)	2,375	-	-	-	-	-	-
West Kern Exchange ^(l)	125	-	-	-	-	-	-
Total Bank/Exchange	15,450	12,950	12,950	12,950	12,950	12,950	7,950
Total Existing Supplies	98,597	96,097	94,752	94,752	94,752	94,752	89,752
Planned Supplies							
Future Groundwater ^(o)							
Alluvial Aquifer ^(m)	2,000	4,000	5,000	7,000	7,000	7,000	7,000
Saugus Formation (Restored) ⁽ⁿ⁾	3,775	3,775	3,775	3,775	3,775	3,775	3,775
Saugus Formation (New) ^(o)	11,100	11,100	11,100	11,100	11,100	11,100	11,100
Total Groundwater	16,875	18,875	19,875	21,875	21,875	21,875	21,875
Recycled Water ^(b)							
Total Recycled	565	5,156	7,627	9,604	9,604	9,604	9,604
Planned Banking Programs							

Rosedale Rio-Bravo Bank ^(a)	7,000	7,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000
Additional Bank ^(b)	-	-	-	-	-	-	-	-	5,000
Total Banking	7,000	7,000	17,000	17,000	17,000	17,000	17,000	17,000	22,000
Total Planned Supplies	24,440	31,031	44,502	48,479	48,479	48,479	48,479	48,479	53,479
Total Existing and Planned Supplies	123,037	127,128	139,254	143,231	143,231	143,231	143,231	143,231	143,231
Demands^(e)									
Demand w/ Plumbing Code Savings	84,400	93,300	102,000	110,000	113,700	117,500	117,500	117,500	121,400
Demand w/ Plumbing Code Savings and Active Conservation	75,800	82,100	88,900	94,700	97,400	100,000	100,000	100,000	103,300

Source: 2015 UWMP, Table 6-4A

Notes:

- (a) Existing groundwater supplies represent the quantity of groundwater anticipated to be pumped with existing wells. As indicated in Tables 4 and 5, and in Tables 3-4 and 3-5 of the 2009 Groundwater Basin Yield Analysis, individual purveyors may have well capacity in excess of quantities shown in this table. As indicated in 2015 UWMP Table 3-12A, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 2.
- (b) Existing recycled water is actual use in 2015. (refer to 2015 UWMP Table 4-4)
- (c) SWP supplies from Table 6, based on 1931-1934 supplies from 2015 DCR.
- (d) Includes both CLWA and Ventura County entities flexible storage accounts. Extended term of agreement with Ventura County entities expires after 2025.
- (e) Distribution of Buena Vista Supply reflects (1) 500 AF of supply dedicate to the pending Tesoro Del Valley annexation into CLWA and NCWD beginning in 2020, and (2) 2,500 AF dedicated to the pending Legacy Village annexation into CLWA and VWC beginning 2035. Prior to these demands developing the entire 11,000 AF of this supply would be available to the entire CLWA service area. Should these developments not occur, the water would continue to be available to the entire CLWA service area. If these developments occur but do not use all of the amounts reserved for them in any year or years, the remaining supply would be available to the entire CLWA service area.
- (f) Existing Newhall Land supply committed under approved Newhall Ranch Specific Plan. Assumed to be transferred to CLWA or VWC during Newhall Ranch development and available for annual purchase prior to that.
- (g) For the multiple-dry year period, it was assumed that CLWA would purchase the maximum it could, an estimated average of 1,000 AFY (after losses) during the four-year period, through 2025.
- (h) CLWA has an existing firm withdrawal capacity of 3,000 AFY and a storage capacity of 100,000 AF. There is currently 94,178 AF of recoverable water in storage.
- (i) CLWA has a maximum firm withdrawal capacity of 5,000 AFY and a storage capacity of 15,000 AF. Additionally, CLWA has 35,970 AF of recoverable water stored which may be recovered using this withdrawal capacity.
- (j) Newhall Land has a maximum withdrawal capacity of 4,950 AFY and a storage capacity of 55,000 AF. At the end of 2015 there was 32,507 AF of recoverable water. This is an existing Newhall Land supply, assumed to be transferred to CLWA or VWC during Newhall Ranch development, with firm withdrawal capacity made available to CLWA prior to that. Delivery of stored water from this program is assumed available to VWC.
- (k) Exchange recovery was assumed to occur sometime during the four-year dry period, for an average annual supply of one-fourth of the total recoverable water available (total recoverable is 9,509 AF from Rosedale-Rio Bravo and 500 AF from West Kern exchange programs).
- (l) Planned groundwater supplies represent supplies from new groundwater wells that may be required by an individual purveyor's production objectives in the Alluvial Aquifer and the Saugus Formation, including 3,775 AFY of restored production from VWC Well 201 and approximately 11,100 AFY from replacement and new Saugus Formation wells. When combined with existing purveyor and non-purveyor groundwater supplies, total groundwater production is consistent with the 1931-1934 multiple dry-year levels identified in Table 3-8 of the 2009 Groundwater Basin Yield Analysis. As indicated in 2015 UWMP Table 3-12A, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 2.

- (m) Represents a shift in current agricultural pumping by Newhall Land and Farming to VWC due to the development of Newhall Ranch.
- (n) VWC Well 201 is planned to be returned to service by 2017 with treatment under a permit from the DDW.
- (o) Up to four new and replacement wells are planned to provide additional dry-year supply and would typically be used only during dry years.
- (p) Planned recycled water is total projected recycled water demand from 2015 UWMP Table 4-3 less existing use. Refer to 2015 UWMP Section 4, including Section 4.4, for further discussion and information regarding factors having the potential to affect the availability of recycled water supplies.
- (q) Firm withdrawal capacity under existing Rosedale Rio-Bravo Banking Program to be expanded by 7,000 AFY by 2017 (for a total of 10,000 AFY) and an additional 10,000 AFY by 2030.
- (r) Additional banking program with firm withdrawal capacity of 5,000 AFY by 2050.
- (s) Demands are Regional Summary demands from 2015 UWMP Table 2-28. Includes a 10 percent increase in demand during dry years.

**Table 15
Projected Three-Year Dry Period Supplies and Demands (AF)**

	2020	2025	2030	2035	2040	2045	2050
Existing Supplies							
Existing Groundwater ^(a)							
Alluvial Aquifer	20,350	20,350	20,350	20,350	20,350	20,350	20,350
Saugus Formation	15,525	15,525	15,525	15,525	15,525	15,525	15,525
Total Groundwater	35,875	35,875	35,875	35,875	35,875	35,875	35,875
Recycled Water ^(b)							
Total Recycled	450	450	450	450	450	450	450
Imported Water							
State Water Project ^(c)	19,800	19,500	19,300	19,000	19,000	19,000	19,000
Flexible Storage Accounts ^(d)	2,020	2,020	1,560	1,560	1,560	1,560	1,560
Buena Vista-Rosedale ^(e)	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land ^(f)	1,607	1,607	1,607	1,607	1,607	1,607	1,607
Yuba Accord ^(g)	1,000	1,000	-	-	-	-	-
Total Imported	35,427	35,127	33,467	33,167	33,167	33,167	33,167
Banking and Exchange Programs							
Rosedale Rio-Bravo Bank ^(h)	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Semitropic Bank ⁽ⁱ⁾	5,000	5,000	5,000	5,000	5,000	5,000	-
Semitropic - Newhall Land Bank ^(j)	4,950	4,950	4,950	4,950	4,950	4,950	4,950
Rosedale Rio-Bravo Exchange ^(k)	3,167	-	-	-	-	-	-
West Kern Exchange ^(k)	167	-	-	-	-	-	-
Total Bank/Exchange	16,284	12,950	12,950	12,950	12,950	12,950	7,950
Total Existing Supplies	88,036	84,402	82,742	82,442	82,442	82,442	77,442
Planned Supplies							
Future Groundwater ^(l)							
Alluvial Aquifer ^(m)	2,000	4,000	5,000	7,000	7,000	7,000	7,000
Saugus Formation (Restored) ⁽ⁿ⁾	3,775	3,775	3,775	3,775	3,775	3,775	3,775
Saugus Formation (New) ^(o)	10,550	10,550	10,550	10,550	10,550	10,550	10,550
Total Groundwater	16,325	18,325	19,325	21,325	21,325	21,325	21,325
Recycled Water ^(p)							
Total Recycled	565	5,156	7,627	9,604	9,604	9,604	9,604

Planned Banking Programs						
Rosedale Rio-Bravo Bank ^(a)	7,000	7,000	17,000	17,000	17,000	17,000
Additional Bank ^(f)	-	-	-	-	-	5,000
Total Banking	7,000	7,000	17,000	17,000	17,000	22,000
Total Planned Supplies	23,890	30,481	43,952	47,929	47,929	52,929
Total Existing and Planned Supplies	111,926	114,883	126,694	130,371	130,371	130,371
Demands^(s)						
Demand w/ Plumbing Code Savings	84,400	93,300	102,000	110,000	113,700	117,500
Demand w/ Plumbing Code Savings and Active Conservation	75,800	82,100	88,900	94,700	97,400	103,300

Source: 2015 UWMP, Table 6-4B

Notes:

- (a) Existing groundwater supplies represent the quantity of groundwater anticipated to be pumped with existing wells. As indicated in Tables 4 and 5, and in Tables 3-4 and 3-5 of the 2009 Groundwater Basin Yield Analysis, individual purveyors may have well capacity in excess of quantities shown in this table. As indicated in Table 2015 UWMP 3-12B, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 2.
- (b) Existing recycled water is actual use in 1990-1992 supplies from 2015 DCR.
- (c) SWP supplies from Table 6, based on 1990-1992 supplies from 2015 DCR.
- (d) Includes both CLWA and Ventura County entities flexible storage accounts. Extended term of agreement with Ventura County entities expires after 2025.
- (e) Distribution of Buena Vista Supply reflects (1) 500 AF of supply dedicate to the pending Tesoro Del Valley annexation into CLWA and NCWD beginning in 2020, and (2) 2,500 AF dedicated to the pending Legacy Village annexation into CLWA and VWC beginning 2035. Prior to these demands developing the entire 11,000 AF of this supply would be available to the entire CLWA service area. Should these developments not occur, the water would continue to be available to the entire CLWA service area. If these developments occur but do not use all of the amounts reserved for them in any year or years, the remaining supply would be available to the entire CLWA service area.
- (f) Existing Newhall Land supply committed under approved Newhall Ranch Specific Plan. Assumed to be transferred to CLWA or VWC during Newhall Ranch development and available for annual purchase prior to that.
- (g) For the multiple-dry year period, it was assumed that CLWA would purchase the maximum it could, an estimated average of 1,000 AFY (after losses) during the four-year period, through 2025.
- (h) CLWA has an existing firm withdrawal capacity of 3,000 AFY and a storage capacity of 100,000 AF. There is currently 94,178 AF of recoverable water in storage.
- (i) CLWA has a maximum firm withdrawal capacity of 5,000 AFY and a storage capacity of 15,000 AF. Additionally, CLWA has 35,970 AF of recoverable water stored which may be recovered using this withdrawal capacity.
- (j) Newhall Land has a maximum withdrawal capacity of 4,950 AFY and a storage capacity of 55,000 AF. At the end of 2015 there was 32,507 AF of recoverable water. This is an existing Newhall Land supply, assumed to be transferred to CLWA or VWC during Newhall Ranch development, with firm withdrawal capacity made available to CLWA prior to that. Delivery of stored water from this program is assumed available to VWC.
- (k) Exchange recovery was assumed to occur sometime during the three-year dry period, for an average annual supply of one-third of the total recoverable water available (total recoverable is 9,509 AF from Rosedale-Rio Bravo and 500 AF from West Kern exchange programs).
- (l) Planned groundwater supplies represent supplies from new groundwater wells that may be required by an individual purveyor's production objectives in the Alluvial Aquifer and the Saugus Formation, including 3,775 AFY of restored production from VWC Well 201 and approximately 10,550 AFY from replacement and new Saugus Formation wells. When combined with existing purveyor and non-purveyor groundwater supplies, total groundwater production is consistent with the 1931-1934 multiple dry-year levels identified in Table 3-8 of the 2009 Groundwater Basin Yield Analysis. As indicated in 2015 UWMP Table 3-12B, existing and planned groundwater

pumping remain within the groundwater operating plan shown on Table 2.

(m) Represents a shift in current agricultural pumping by Newhall Land and Farming to VWC due to the development of Newhall Ranch.

(n) VWC Well 201 is planned to be returned to service by 2017 with treatment under a permit from the DDW.

(o) Up to four new and replacement wells are planned to provide additional dry-year supply and would typically be used only during dry years.

(p) Planned recycled water is total projected recycled water demand from 2015 UWMP Table 4-3 less existing use. Refer to 2015 UWMP Section 4, including Section 4.4, for further discussion and information regarding recycled water having the potential to affect the availability of recycled water supplies.

(q) Firm withdrawal capacity under existing Rosedale Rio-Bravo Banking Program to be expanded by 7,000 AFY by 2017 (for a total of 10,000 AFY) and an additional 10,000 AFY by 2030.

(r) Additional banking program with firm withdrawal capacity of 5,000 AFY by 2050.

(s) Demands are Regional Summary demands from 2015 UWMP Table 2-28. Includes a 10 percent increase in demand during dry years.

3.2.5. Supply and Demand Comparison

Based on the information presented in Table 12, Table 13, Table 14, and Table 15 above, the following tables demonstrate the current and projected supply and demand for average/normal, single-dry, and multiple-dry years through 2050, including estimated annual water demands from the Project.

Table 16 – Projected Average/Normal Year Supplies and Demands with Project

	Supply (AF)						
	2020	2025	2030	2035	2040	2045	2050
Total Existing Supplies	103,402	103,102	102,902	102,702	102,702	102,702	102,702
Total Planned Supplies ⁽²⁾	5,345	11,936	15,407	19,384	19,384	19,384	19,384
Total Existing and Planned Supplies ⁽²⁾	108,747	115,038	118,309	122,086	122,086	122,086	122,086
Total Water Demand (with plumbing code savings and active conservation) ⁽¹⁾	68,900	74,600	80,800	35,986	33,586	31,186	28,186
Surplus Supplies (Existing & Planned Supplies less Demand with Project)	39,847	40,438	37,509	35,986	33,586	31,186	28,186

Source: 2015 UWMP Table 6-2

Note:

(1) Includes project demand of 1,540 AF for Average/Normal Year.

Table 17 – Projected Single-Dry Year Supplies and Demands with Project

	Supply (AF)						
	2020	2025	2030	2035	2040	2045	2050
Total Existing Supplies and Banking	77,082	77,082	75,702	75,702	75,702	75,702	70,702
Total Planned Supplies and Banking ⁽²⁾	22,450	29,041	42,512	46,489	46,489	46,489	51,489
Total Existing and Planned Supplies and Banking ⁽²⁾	99,532	106,123	118,214	122,191	122,191	122,191	122,191
Total Water Demand (with plumbing code savings and active conservation) ⁽¹⁾	75,800	82,100	88,900	94,700	97,400	100,000	103,300
Surplus Supplies (Existing & Planned Supplies less Demand with Project)	23,732	24,023	29,314	27,491	24,791	22,191	18,891

Source: 2015 UWMP Table 6-3

Note:

(1) Includes project demand of 1,694AF for Single-Dry Year.

Table 18 – Projected Four-Year Dry Period Supplies and Demands with Project

	Supply (AF)						
	2020	2025	2030	2035	2040	2045	2050
Total Existing Supplies and Banking/Exchanges	98,597	96,097	94,752	94,752	94,752	94,752	89,752
Total Planned Supplies and Banking/Exchanges ⁽²⁾	23,990	30,581	44,052	48,029	48,029	48,029	53,029
Total Existing and Planned Supplies and Banking/Exchanges ⁽²⁾	122,587	126,978	138,804	142,781	142,781	142,781	142,781
Total Water Demand (with plumbing code savings and active conservation) ⁽¹⁾	75,800	82,100	88,900	94,700	97,400	100,000	103,300
Surplus Supplies (Existing & Planned Supplies less Demand with Project)	46,787	44,578	49,904	48,081	45,381	42,781	39,481

Source: 2015 UWMP Table 6-4A

Note:

(1) Includes project demand of 1,694 AF for Multiple-Dry Year.

Table 19 – Projected Three-Year Dry Period Supplies and Demands with Project

	Supply (AF)						
	2020	2025	2030	2035	2040	2045	2050
Total Existing Supplies and Banking/Exchanges	88,036	84,402	82,742	82,442	82,442	82,442	77,442
Total Planned Supplies and Banking/Exchanges ⁽²⁾	23,440	30,031	43,502	47,479	47,479	47,479	52,479
Total Existing and Planned Supplies and Banking/Exchanges ⁽²⁾	111,476	114,433	126,244	129,921	129,921	129,921	129,921
Total Water Demand (with plumbing code savings and active conservation) ⁽¹⁾	75,800	82,100	88,900	94,700	97,400	100,000	103,300
Surplus Supplies (Existing & Planned Supplies less Demand with Project)	35,676	32,333	37,344	35,221	32,521	29,921	26,621

Source: 2015 UWMP Table 6-4B

Note:

(1) Includes project demand of 1,694 AF for Multiple-Dry Year.

4. Water Shortage Contingency Analysis

Water supplies may be interrupted or reduced substantially in a number of ways, such as a drought which limits supplies, an earthquake which damages water delivery or storage facilities, a regional power outage, or a toxic spill that affects water quality. The 2015 UWMP, Chapter 8.0, describes how CLWA and the retail water purveyors, including SCWD, plan to respond to such emergencies so that customer needs are met adequately, promptly and equitably. To date, Water Shortage Contingency Plans have been prepared by CLWA and the retail purveyors. In addition, prohibitions, penalties, and financial impacts of shortages recently have been developed by CLWA, SCWD, NCWD and VWC and are summarized in Chapter 8.0 of the 2015 UWMP.

In preparing this WSV, SCWD considered the urban water shortage contingency planning analysis set forth in the 2015 UWMP, Chapter 8.0, in determining the sufficiency of water supplies for the Skyline Ranch Project, in addition to all existing and planned future uses throughout the SCWD service area, and, as a conservative measure, all existing and planned future uses in the Santa Clarita Valley.

On April 1, 2015, Governor Jerry Brown issued an Executive Order directing the State Water Resources Control Board (State Board) to impose restrictions on urban water suppliers to achieve a statewide 25 percent reduction in potable urban usage through February 2016, along with other directives. On May 5, 2015, the State Board adopted an emergency water conservation regulation requiring urban retail water suppliers to reduce their water production by certain percentages through February 2016 in comparison to 2013 levels. SCWD's required reduction was 32%. CLWA and the retail purveyors increased conservation outreach and programs in order to meet the requirements of emergency regulation. On February 2, 2016, the State Board approved an extension of the statewide emergency conservation regulation through October 2016 while providing urban water suppliers more flexibility in meeting their conservation requirements. The revised regulation also provided credits for certain factors that affect water use such as hotter-than-average climates, population growth, and significant investments in new local drought resilient water sources such as recycled water reuse.

On May 9, 2016, the Governor issued Executive Order B-37-16 that directed the State Board to adjust and extend its emergency water conservation regulations through the end of January 2017 in recognition of the differing water supply conditions for many communities across the state. On May 18, 2016, the State Board adopted a new emergency conservation regulation, which is proposed to remain in effect until the end of January 2017. Among other things, the regulation requires urban each urban retail water supplier to either (1) develop and report an individualized water conservation and reduction standard according to prescribed methodologies, or (2) reduce its total potable water production by the percentage identified as its conservation standard under the previous emergency regulation, subject to potential adjustments. The alternative conservation standard is calculated by comparing the average annual customer demand from 2013 and 2014 to the available supplies in 2017, 2018, and 2019 assuming the three-year hydrology of 2013, 2014, and 2015. Urban retailers must self-certify and file their alternative conservation standards with the State Board. SCWD completed this self-certification and filed it with the State Board on June 22, 2016.

The self-certification identified sufficient supply to meet demands, assuming three additional drought years as required by the State Board regulation. Accordingly, SCWD's Board has rescinded Ordinance No. 43 and adopted a new conservation Ordinance No. 44⁴¹. The State Board's new conservation regulation originally was scheduled to remain in effect until February 2017. Recently the State Board proposed to extend the regulation an additional 270 days.

⁴¹ For further water conservation information, refer to 2015 UWMP Section 7, and the 2015 Santa Clarita Valley Water Report Section 5.

5. Conclusion

The County certified a Final EIR for the Skyline Ranch Project in May 2010, which included a Water Supply Assessment prepared and adopted by SCWD in accordance with SB 610 concluding that the total projected water supplies available to SCWD during normal, single-dry, and multiple-dry periods over the 20-year projection and beyond will be sufficient to serve the demands associated with the proposed Project in addition to SCWD's existing and planned future uses. Table 1 above shows the estimated potable water demand for the Project to be 1,540 AFY in an average/normal year, and 1,694AFY in dry years, which represents about 2% of total demand within the CLWA service area. Since the Skyline Ranch Project potable water demand has already been accounted for in the 2015 UWMP, the Project demand of 1,540 to 1,694AFY is already part of SCWD's "planned future uses."

Based on the preceding information and analyses, which also rely in part upon the documents referenced herein, including SCWD's prior Water Supply Assessment for the Project, and the County's CEQA approval and other project approvals and analyses, and pursuant to the requirements of Government Code section 66473.7, this WSV concludes that the total water supplies projected to be available to SCWD during average/normal, single-dry, and multiple-dry years within a 20-year projection are sufficient to meet the projected demand associated with the Skyline Ranch Project, in addition to existing and planned future uses, including but not limited to agricultural and industrial uses.

Consistent with the provisions of SB 221, neither this WSV nor its approval shall be construed to create a right or entitlement to water service or any specific level of water service for the proposed Project. The WSV does not constitute a will-serve, plan of service, or agreement to provide water service to the Project, and does not entitle the Project, the Project Applicant, or any other person or entity to any right, priority or allocation in any supply, capacity or facility. To receive water service, the Project will be subject to an agreement with SCWD, together with any and all applicable fees, charges, plans and specifications, conditions, and any and all other applicable SCWD requirements in place and as amended from time to time. Nor does anything in this WSV prevent or otherwise interfere with SCWD's discretionary authority to declare a water shortage emergency in accordance with Water Code Section 350 et seq. and to take any and all related and other actions authorized by law.

6. References

This WSV and the information, analyses and conclusions presented herein are supported in part by the documents, reports, and studies referenced below. The following list of such documents, which were utilized and relied upon in part by SCWD in preparing this WSV, are incorporated herein, and are available for public review and inspection by contacting SCWD, Keith Abercrombie, Retail Manager, 26521 Summit Circle, Santa Clarita, California 91350, (661) 259-2737.

The following documents also can be obtained from SCWD upon payment of reproduction costs:

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Slade, Richard C., Richard C. Slade and Associates, LLC. July 2002. *2001 Update Report: Hydrogeologic Conditions in the Alluvial and Saugus Formation Aquifer Systems*. Prepared for Santa Clarita Valley Water Purveyors.

Slade Richard C., Richard C. Slade and Associates, LLC. February 1988. *Hydrogeologic Assessment of the Saugus Formation in the Santa Clara Valley of Los Angeles County*. Volumes I and II.

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Retail Operations Committee Calendar
FY 2016/2017

ITEM NO.
8

Item	June 28 Special Comm	July 13 Board	Aug 9 Special Comm	Aug 24 Board	Sept 6 Comm	Sept 14 Board	Oct 4 Comm	Oct 12 Board	Nov 1 Comm	Nov 9 Board	Dec 6 Comm	Dec 14 Board	Jan 3 Comm	Jan 11 Board	Jan 31 Comm	Feb 8 Board	Feb 28 Comm	March 8 Board	April 4 Comm	April 12 Board	May 2 Comm	May 17 Special Board	June 6 Comm	June 14 Board
1 Water Production Report	C																							
2 Recommend Receiving and Filing of SCWD Finance and Expenditure Report	C	C	C	C	C																			
3 Recommend Receiving and Filing of SCWD FY 2016/17 First Quarter Budget Report	C	C																						
4 SCWD FY 2015/16 Year End Budget Report																								
5 Recommend Receiving and Filing of SCWD FY 2016/17 Midyear Budget Report																								
6 SCWD FY 2016/17 Third Quarter Budget Report																								
7 Recommend Receiving and Filing of SCWD Quarterly Investment Report																								
8 Committee Planning Calendar																								
9 General Report on Retail Operation Activities																								
10 Developer Report																								
11 Recommend Approval of a Resolution Authorizing the Castaic Lake Water Agency to Apply for Funding from the Drinking Water State Revolving Fund on Behalf of the Los Angeles Residential Community	C	C	C	C	C																			
12 Recommend Approval of a Resolution Awarding a Contract to Aqua Metric for Purchase and Installation of Automated Meter Reading Equipment	C	C																						
13 Recommend Approval of a Resolution Approving Rates for the Santa Clarita Water Division Capacity Fees	C	C																						

C = Completed Item
P = Planned Item

**Retail Operations Committee Calendar
FY 2016/2017**

Item	June 28 Special Comm	July 13 Board	Aug 9 Special Comm	Aug 24 Board	Sept 6 Comm	Sept 14 Board	Oct 4 Comm	Oct 12 Board	Nov 1 Comm	Nov 9 Board	Dec 6 Comm	Dec 14 Board	Jan 3 Comm	Jan 11 Board	Jan 31 Comm	Feb 8 Board	Feb 28 Comm	March 8 Board	April 4 Comm	April 12 Board	May 2 Comm	May 17 Special Board	June 6 Comm	June 14 Board	
14	Recommend (1) Approval of an Ordinance to Establish Water Conservation and Water Supply Shortage Restrictions and Regulations for the Santa Clarita Water Division, and (2) Adoption of a Resolution Rescinding Resolution No. 3041 Which had Declared a Level 2 Water Shortage Condition Pursuant to Ordinance No. 43	C	C		CANCELLED								CANCELLED												
15	Recommend Adoption of a Resolution Approving the SB 610 Water Supply Assessment for Sand Canyon Plaza Project (City Master Case 14-077)		C	C																					
16	Recommend Adoption of a Resolution Approving the SB 221 Water Supply Verification for Vista Canyon Project (TTM-69164)		C	C																					
17	Recommend Rescinding Resolution No. 2793 and Approving of a Resolution for the Implementation of Credit/Debit Card Payment Processing		C	C	CANCELLED																				
18	Santa Clarita Water Division and Valencia Water Company 2016 Public Health Goals Report of Compliance Presentation			C																					
19	Recommend Approval of a Resolution Revising the SCWD Reserve Fund Policy																								
20	Annual Review of Identity Theft Prevention Program						C																		
21	Masterplan and CIP Presentation						C																		
22	Annual Review of Customer Service Standard Operating Procedures (SOP)								C																

Retail Operations Committee Calendar
FY 2016/2017

Item	June 28 Special Comm	July 13 Board	Aug 9 Special Comm	Aug 24 Board	Sept 6 Comm	Sept 14 Board	Oct 4 Comm	Oct 12 Board	Nov 1 Comm	Nov 9 Board	Dec 6 Comm	Dec 14 Board	Jan 3 Comm	Jan 11 Board	Jan 31 Comm	Feb 8 Board	Feb 28 Comm	March 8 Board	April 4 Comm	April 12 Board	May 2 Comm	May 17 Special Board	June 6 Comm	June 14 Board
23	Recommend Approval of a Resolution to Award Contracts for On-Call Engineering Services																							
24	Recommend Approval of a Resolution Adopting the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program Under the California Environmental Quality Act for the Los Angeles Residential Community Ranch Water Pipeline Project																							
25	Recommend Approval of a Resolution Approving the Mitigated Negative Declaration for the Construction of the Phase 2B Recycled Water Backbone and Distribution System Infrastructure																							
26	Review Proposed FY 2017 / 2018 Actions																							
27	Recommend Approval of a Resolution Adopting the SCWD FY 2017 / 2018 Budget																							
28	Recommend Approval of a Resolution Awarding a Contract to Recoat the Interior of the Deane Tank No. 2																							
29	Recommend Approval of a Resolution Awarding a Contract to Retrofit the Tank Overflow and to Recoat the Interior and Exterior of the Placerita Tank No. 2																							
30	SCWD Rate Study Discussion																							
31	Review Rate Increase Options and SCWD FY 2017/18 Budget Baseline																							

**Retail Operations Committee Calendar
FY 2016/2017**

Item	June 28 Special Comm	July 13 Board	Aug 9 Special Comm	Aug 24 Board	Sept 6 Comm	Sept 14 Board	Oct 4 Comm	Oct 12 Board	Nov 1 Comm	Nov 9 Board	Dec 6 Comm	Dec 14 Board	Jan 3 Comm	Jan 11 Board	Jan 31 Comm	Feb 8 Board	Feb 28 Comm	March 8 Board	April 4 Comm	April 12 Board	May 2 Comm	May 17 Special Board	June 6 Comm	June 14 Board	
32	Recommend Approval of a Resolution Authorizing a Proposition 218 Notice of Public Hearing on the Proposed Retail Water Rates and Setting a Public Hearing Date.				C A N C E L L E D																P				
33	Conference with Real Property Negotiators (Section 54956.8) Property: SCWD Tank Site (25521 Mountain Pass Road, Newhall, CA 91321) (CLOSED SESSION)								C	C															
34	Conference with Real Property Negotiators (Section 54956.8) Property: Placerita Tank Site Acquisition (CLOSED SESSION)								C	C															
35	Recommend Adoption of a Resolution Approving the SB 221 Water Supply Verification for Skyline Ranch Project (VTTM 60922)																								