

**Lyons Canyon Ranch
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5.11 WATER AND WASTEWATER

This section evaluates the impacts of the proposed project on water supply and water conveyance and treatment facilities. This section also analyzes project-related impacts to wastewater conveyance and treatment facilities. The following analysis is based on water and sewer infrastructure analysis entitled Lyons Canyon Water and Wastewater Infrastructure Study performed by Diamond West Engineering 2005, herein referred to as the project's *Water and Sewer Study*. Water supply information provided in this section is based on the analysis and conclusions included in the Water Supply Study for the Lyons Canyon Ranch Project performed by Science Applications International Corporation (SAIC) in January 2006, herein referred to as the project's *Water Supply Study*. Both the *Water and Sewer Study* and the *Water Supply Study* are included in their entirety in Appendices M and N, respectively.

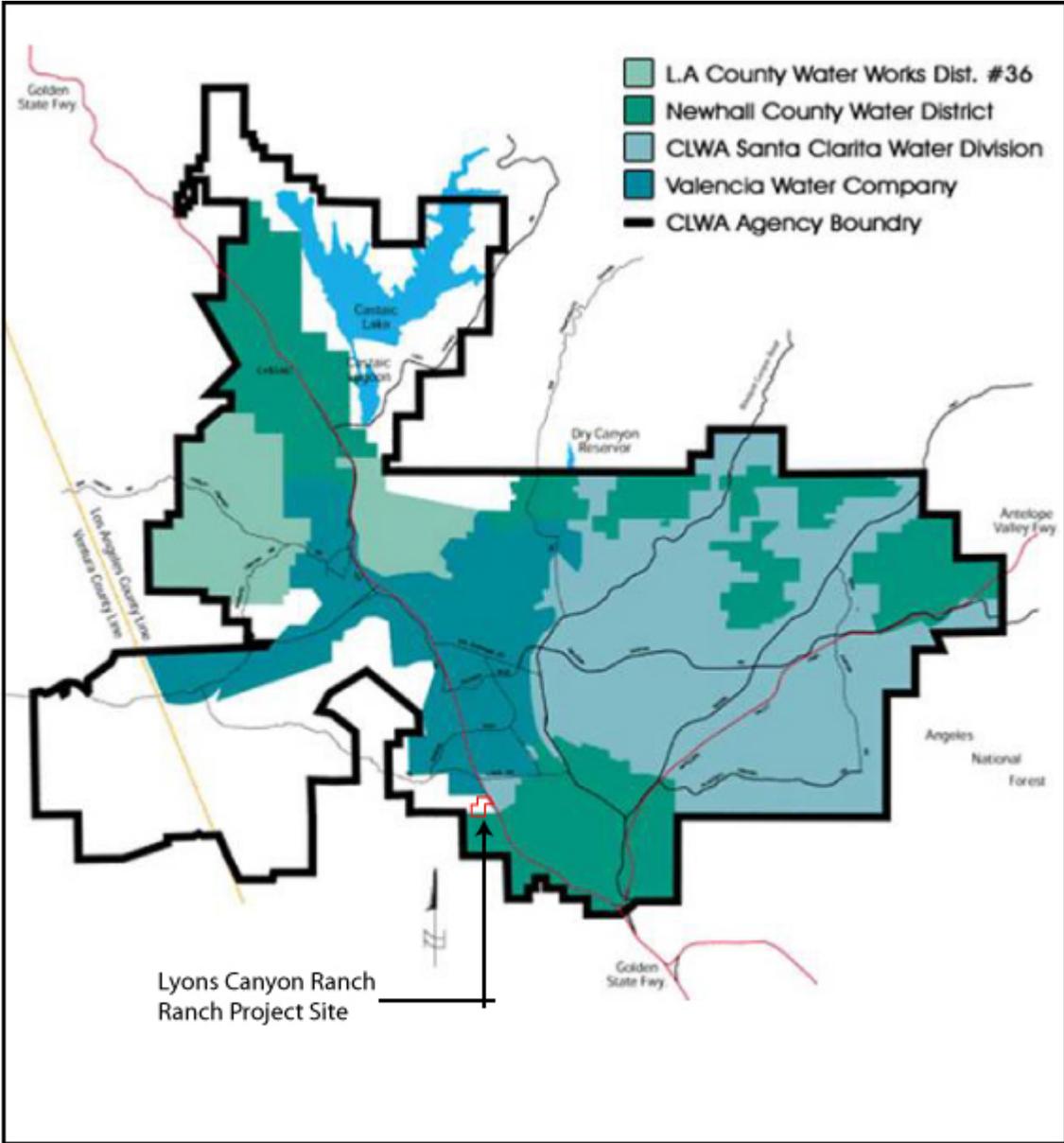
5.11.1 ENVIRONMENTAL SETTING

WATER SERVICE AND SUPPLY

The project site is not currently located within a defined service area of a water purveyor, and therefore, there is no domestic water service provided to the project site. The project site is located within the service area of the Castaic Lake Water Agency (CLWA). Valencia Water Company (VWC), a CLWA purveyor, provides the nearest water service to properties north of the project site, while Newhall County Water District (NCWD), also a CLWA purveyor, provides water service to properties south of the site. The closest water purveyor to the proposed development with proximate infrastructure is the VWC and infrastructure to serve the project site exists near the northern end of the site which is under the jurisdiction of VWC. The project applicant is currently determining which local water service agency would serve the project but the project would likely be served by VWC. Once a purveyor is selected, the site would need to be annexed into the respective purveyor's service area. CLWA provides State Water Project (SWP) water to both VWC and NCWD as well as other purveyors within the Santa Clarita Valley (refer to Exhibit 5.11-1, Wholesaler and Purveyor Service Areas).

The water agencies which may serve the project area, as well as relevant issues related to water supply, are discussed below.

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Wholesaler and Purveyor Service Areas

Exhibit 5.11-1

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WATER WHOLESALERS AND PURVEYORS

Castaic Lake Water Agency

CLWA is a public water agency that serves an area of 195 square miles in Los Angeles and Ventura counties. CLWA is a water wholesaler that provides about half of the water used by Santa Clarita households and businesses. CLWA treats and delivers water to the local water retailers, including the Santa Clarita Water Division, Los Angeles County Water District #36, Newhall County Water District (NCWD), and VWC. CLWA operates two potable water treatment plants, storage facilities, and over 17 miles of transmission pipelines. Historically, groundwater has been the primary source of water in the Santa Clarita Valley. Since 1980, however, local groundwater supplies have been supplemented with imported water from the SWP. CLWA also delivers highly treated recycled water from one of the two water reclamation plants in the Santa Clarita Valley, owned by the Sanitation Districts of Los Angeles County, in order to meet the non-potable water demands (e.g., golf course and landscape irrigation).

Valencia Water Company

The VWC's service area includes a portion of the City of Santa Clarita and the unincorporated communities of Castaic, Newhall, Saugus, Stevenson Ranch, and Valencia. VWC supplies water from both groundwater wells and CLWA turnouts to an estimated 28,296 service connections (CLWA et al. 2005b). VWC also delivers recycled water for some non-potable uses.

Newhall County Water District

The NCWD service area lies in three distinct geographical areas of the Santa Clarita Valley: Newhall, Pinetree, and Castaic. NCWD has approximately 9,010 service connections, which are spread over a 34-square-mile area (CLWA et al. 2005b). The NCWD supplies water from both groundwater wells and CLWA-imported water. In 2004, water demand for the NCWD was 11,217 acre-feet (AF), or 13 percent of the total CLWA 2004 demand, with 5,896 AF supplied by SWP water and the balance provided by local groundwater (CLWA et al. 2005b).

HISTORIC WATER SUPPLIES

Groundwater Supplies

The Santa Clarita Valley has historically depended on an underground water basin (aquifer) for its water supply, which is divided into upper and lower levels. Overall, the groundwater basin covers about 84 square miles and includes a shallow upper basin, the Alluvial Aquifer (discussed below), and a deeper layer called the Saugus Formation.

SAUGUS FORMATION

The Saugus Formation contains much greater quantities of groundwater than the Alluvial Aquifer. Recent information on the thickness of the alluvium and the degree of potential draw down interference between adjacent Saugus Formation and Alluvial Aquifer wells has supported

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a calculation of groundwater in storage in the Saugus Formation of approximately 1.65 million AF (Slade 2002).

The Saugus Formation has supplied about 7,500 to 15,000 AFY in normal weather years (CLWA et al. 2005a). 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 (CLWA et al. 2005a). No long-term continuous or permanent decline in either water levels or the amount of groundwater in storage has occurred under the historical range of pumping (Slade 2002). However, high pumping would be 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 would recover water levels and groundwater storage volumes after the higher pumping during dry years (CLWA et al. 2005a).

Total pumpage from the Saugus Formation in 2004 was 6,500 AF, up from approximately 4,200 in the preceding year (CLWA et al. 2005b). Groundwater pumpage from the Saugus peaked in the early 1990s and then declined steadily; pumpage has remained stable, at an average of about 4,800 AFY, since 2000 (CLWA et al. 2005b). On a long-term average basis since the importation of SWP water, total pumpage from the Saugus Formation has ranged from a low of about 3,700 AFY (in 1999) to a high of nearly 15,000 AFY (in 1991); average pumpage from 1980 to present has been about 7,000 AFY (CLWA et al. 2005b). These numbers are at the lower end of the estimated range of the operational yield of the Saugus Formation.

The use of 4 wells in the Saugus Formation has been suspended due to the detection of perchlorate (discussed below).

ALLUVIAL AQUIFER

Although the Alluvial Aquifer is the smaller of the two-aquifer system as measured by storage capacity, most water wells within the CLWA service area are drilled into this aquifer. The practical or perennial yield of the Alluvial Aquifer was estimated to be from 31,600 AFY to 32,600 AFY (Slade 1986). However, the total annual groundwater production from the Alluvial Aquifer (urban and agricultural production) over the last 10 years has averaged approximately 35,000 AFY, about 10 percent higher than the “practical or perennial yield” without any evidence of undesirable conditions that might be an indication of aquifer overdraft (Slade 2002). The primary reason that the Alluvial Aquifer has been able to supply groundwater in volumes that are in excess of its previously estimated perennial yield is due to the increase in imports of SWP water by CLWA (Slade 2002). Based on discharge records published by the Los Angeles Regional Water Quality Control Board, approximately half of the imported water is returned to the Alluvial Aquifer in the form of discharge from the two wastewater reclamation plants located along the Santa Clara River (LARWQCB 2002).

The operational yield of the Alluvial Aquifer is estimated to be about 30,000 to 40,000 AFY in normal weather years, and 30,000 to 35,000 AFY in dry years (Slade 2002). Total pumpage from the Alluvial Aquifer in 2004 was approximately 33,800 AF, an increase of about 200 AF from the preceding year (CLWA et al. 2005b). Groundwater pumping from the Alluvial Aquifer

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has averaged approximately 36,500 AFY since 2000 (CLWA et al. 2005b). Over the last two decades, since the inception of SWP deliveries in 1980, total pumpage from the Alluvium has ranged from a low of about 20,000 AFY (in 1983) to slightly more than 43,000 AFY (in 1999) (CLWA et al. 2005b).

The use of two wells in the Alluvial Aquifer has been suspended due to the detection of perchlorate (discussed below).

PERCHLORATE ISSUES

The subject of perchlorate contamination and its impact on groundwater supplies has been extensively discussed in CLWA's 2005 Urban Water Management Plan (2005 UWMP). As discussed in the 2005 UWMP, perchlorate was detected in four Saugus Formation production wells near the former Whittaker-Bermite site in 1997. As a result, these wells (SCWD's Wells Saugus 1 and Saugus 2, NCWD's Well NC-11, and VWC's Well V-157) have been removed from service. In 2002, perchlorate was detected in the SCWD Stadium well located directly adjacent to the Whittaker-Bermite site. This Alluvial well has also been removed from service. Since the detection of perchlorate and resultant inactivation of impacted wells, the purveyors have been conducting regular monitoring of active wells near the Whittaker-Bermite site. In April of 2005, the presence of perchlorate was detected in VWC's Well Q2, an Alluvial well located immediately northwest of the confluence of Bouquet Creek and the Santa Clara River. VWC removed the well from active service. Significant progress has been made toward characterizing the extent of perchlorate contamination and implementing the necessary measures for on-site clean-up and off-site groundwater containment and treatment. Restoration of all impacted capacity is anticipated in 2006 (CLWA et al. 2005a).

Imported Water

As discussed, CLWA provides imported water supplies via the SWP to the CLWA service area. SWP deliveries to CLWA from 1990 through 2004 are shown in Table 5.11-1, Summary of Annual SWP and Local Groundwater Use within the CLWA Service Area (1990 To 2004). SWP supplies supplement local water sources and are used to meet the municipal and industrial demand of the region. As is shown in Table 5.11-1 deliveries to CLWA of its SWP supply have generally increased over the past decade as demands within the service area have risen through this time.

Table 5.11-1 also shows total water deliveries in the CLWA service area from 1990 through 2004. Total water deliveries within the CLWA service area include deliveries by the four municipal water purveyors, along with groundwater pumped by agriculture and miscellaneous uses. Agriculture and miscellaneous uses include irrigated agriculture, landscape irrigation, golf course irrigation, and other miscellaneous uses within the service area.

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**Table 5.11-1
Summary of Annual SWP, Local Groundwater, and
Recycled Water Use within the CLWA Service Area, 1990 to 2004**

Year	SWP Table A ¹ Amount (AF)	SWP Allocation ² (Percent)	SWP Deliveries (AF)	Local Groundwater Deliveries ³ (AF)	Agriculture and Miscellaneous Uses ⁴ (AF)	Recycled Water ⁵ (AF)	Total (AF)
1990	41,500	100	21,600	21,500	11,280	-	54,380
1991	54,200	30	7,970	31,800	10,280	-	50,050
1992	54,200	45	14,900	27,300	12,150	-	54,350
1993	54,200	100	13,840	30,000	11,220	-	55,060
1994	54,200	53	14,700	31,600	13,870	-	60,170
1995	54,200	100	17,000	28,700	14,350	-	60,050
1996	54,200	100	18,870	32,100	15,350	-	66,320
1997	54,200	100	23,220	32,000	16,390	-	71,610
1998	54,200	100	20,270	28,600	13,610	-	62,480
1999	54,200	100	27,300	30,000	17,140	-	74,440
2000	95,200	100	32,580	28,400	15,320	-	76,300
2001	95,200	39	35,370	25,320	16,090	-	76,780
2002	95,200	70	41,770	26,460	16,810	-	85,040
2003	95,200	90	44,420	22,980	14,810	700	82,910
2004	95,200	65	47,200	24,670	15,590	450	87,910

Notes:

- ¹ "Table A" is a term used in the SWP Water Supply Contracts. The "Table A Amount" is the annual maximum amount of water to which an SWP Contractor is contractually entitled, and is specified in Table A of each Contractor's Water Supply Contract. (The Table A Amount was previously referred to as "entitlement.") However, the amount of water actually available for delivery in any year may be an amount less than the Contractor's Table A Amount due to hydrology and a number of other factors.
- ² SWP allocation (i.e., the percent of Table A Amount that each Contractor could have received based on that year's supply availability and Contractor requests), as determined by DWR for the year. The values shown are municipal and industrial (M&I) Table A allocation percentages. In 1991, the Devil's Den Water District permanently transferred 12,700 AF of agricultural Table A Amount to CLWA. For years prior to implementation of the Monterey Amendment in 1996, agricultural Table A allocations were as follows: 0 percent in 1991, 45 percent in 1992, 100 percent in 1993, 53 percent in 1994, and 100 percent in 1995.
- ³ Groundwater deliveries by municipal water purveyors within the CLWA service area.
- ⁴ Includes groundwater pumped by, and SWP water delivered to, agricultural and miscellaneous uses within the CLWA service area. SWP deliveries to agricultural and miscellaneous uses within the CLWA service area occurred from 1992 to 2000, with a maximum of approximately 1,070 AF delivered in 1997.
- ⁵ In 2003, those water supplies began to be augmented by the initiation of deliveries from CLWA's recycled water program. Ongoing expansion of this program is anticipated to increase the recycled water supply.

Source: CLWA et al. 2005b.

DEPARTMENT OF WATER RESOURCES DELIVERIES

On May 25, 2005, DWR informed the SWP Contractors that it was in the process of updating the Reliability Report and provided a recommended set of analyses to be used for preparing 2005 UWMPs (DWR 2005). These updated analyses indicated that the SWP could deliver up to 77 percent of the total Table A Amounts on a long-term average basis. Assuming SWP reliability of 77 percent, CLWA's average/normal water year deliveries would be approximately 73,300 AFY (CLWA's Table A entitlement is 95,200 AFY). The single dry year deliveries, according

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to the DWR are forecasted to be approximately five percent of CLWA's Table A, or 4,800 AFY, and the multiple dry year deliveries could be approximately 33 percent, or 31,400 AFY. These forecasts vary slightly over the 2005 UWMP planning period as shown in the tables associated with the Water Supply and Demand Assessment discussion below.

WATER SUPPLY AND DEMAND ASSESSMENT

Table 5.11-2, Current and Planned Water Supplies and Banking Programs, below provides a summary of the current and planned water supplies and banking programs as identified by CLWA in the 2005 UWMP. Table 5.11-3, Projected Average/Normal Year Supplies and Demands, provides CLWA's projected average/normal water year water supplies and demands (see below). Table 5.11-4, Projected Single Dry Year Supplies and Demands and Table 5.11-5, Projected Multiple Dry Year Supplies and Demands (also below) provide the projected single and multiple dry year water supplies and demands. The analysis provided in the 2005 UWMP takes into account the available water supplies and water demands for CLWA's service area to assess the region's ability to satisfy demands through the year 2030. Diversity of supply allows CLWA and the 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 contamination, such as perchlorate.

**Table 5.11-2
Current and Planned Water Supplies and Banking Programs¹
(Acre-Feet)**

	2005	2010	2015	2020	2025	2030
EXISTING SUPPLIES						
Wholesale (Imported)	70,380	73,660	75,560	76,080	77,980	77,980
SWP Table A Supply ²	65,700	67,600	69,500	71,400	73,300	73,300
Flexible Storage Account ³ (CLWA)	4,680	4,680	4,680	4,680	4,680	4,680
Flexible Storage Account ^{3,4} (Ventura County)	0	1,380	1,380	0	0	0
Local Supplies						
Groundwater	40,000	46,000	46,000	46,000	46,000	46,000
Alluvial Aquifer	35,000	35,000	35,000	35,000	35,000	35,000
Saugus Formation	5,000	11,000	11,000	11,000	11,000	11,000
Recycled Water	1,700	1,700	1,700	1,700	1,700	1,700
Total Existing Supplies	112,080	121,360	123,260	123,780	125,680	125,680
EXISTING BANKING PROGRAMS³						
Semitropic Water Bank ⁵	50,870	50,870	0	0	0	0
Total Existing Banking Programs	50,870	50,870	0	0	0	0

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**Table 5.11-2
Current and Planned Water Supplies and Banking Programs¹
(Acre-Feet) (continued)**

	2005	2010	2015	2020	2025	2030
PLANNED SUPPLIES						
Local Supplies						
Groundwater	0	10,000	10,000	20,000	20,000	20,000
Restored Wells (Saugus Formation)	0	10,000	10,000	10,000	10,000	10,000
New Wells (Saugus Formation)	0	0	0	10,000	10,000	10,000
Recycled Water ⁶	0	0	1,600	6,300	11,000	15,700
Transfers						
Buena Vista-Rosedale ⁷	0	11,000	11,000	11,000	11,000	11,000
Total Planned Supplies						
	0	21,000	22,600	37,300	42,000	46,700
Planned Banking Programs³						
Rosedale-Rio Bravo	0	20,000	20,000	20,000	20,000	20,000
Additional Planned Banking	0	0	20,000	20,000	20,000	20,000
Total Planned Banking Programs						
	0	20,000	40,000	40,000	40,000	40,000

Notes:

- ¹ The values shown under "Existing Supplies" and "Planned Supplies" are supplies projected to be available in average/normal years. The values shown under "Existing Banking Programs" and "Planned Banking Programs" are either total amounts currently in storage, or the maximum capacity of program withdrawals.
- ² SWP supplies are calculated by multiplying CLWA's Table A Amount of 95,200 AF by percentages of average deliveries projected to be available, taken from Table 6-5 of DWR's "Excerpts from Working Draft of 2005 State Water Project Delivery Reliability Report" (May 2005).
- ³ Supplies shown are total amounts that can be withdrawn, and would typically be used only during dry years.
- ⁴ Initial term of the Ventura County entities' flexible storage account is ten years (from 2006 to 2015).
- ⁵ Supplies shown are the total amount currently in storage, and would typically be used only during dry years. Once the current storage amount is withdrawn, this supply would no longer be available and in any event, is not available after 2013.
- ⁶ Recycled water supplies based on projections provided in Chapter 4, Recycled Water of the 2005 UWMP.
- ⁷ CLWA is in the process of acquiring this supply, primarily to meet the potential demands of future annexations to the CLWA service area. This acquisition is consistent with CLWA's annexation policy under which it will not approve potential annexations unless additional water supplies are acquired. Currently proposed annexations have a demand for about 4,000 AFY of this supply which, if approved, would leave the remaining 7,000 AFY available for potential future annexations. Unless and until any such annexations are actually approved, this supply will be available to meet demands within the existing CLWA service area.

Source: CLWA et al. 2005a. Table 3-1.

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**Table 5.11-3
Projected Average/Normal Year Supplies and Demands (Acre-Feet)**

	2010	2015	2020	2025	2030
EXISTING SUPPLIES					
Wholesale (Imported)	67,600	69,500	71,400	73,300	73,300
SWP Table A Supply ¹	67,600	69,500	71,400	73,300	73,300
Flexible Storage Account (CLWA) ²	0	0	0	0	0
Flexible Storage Account (Ventura County) ²	0	0	0	0	0
Local Supplies					
Groundwater	46,000	46,000	46,000	46,000	46,000
Alluvial Aquifer	35,000	35,000	35,000	35,000	35,000
Saugus Formation	11,000	11,000	11,000	11,000	11,000
Recycled Water	1,700	1,700	1,700	1,700	1,700
Total Existing Supplies	115,300	117,200	119,100	121,000	121,000
EXISTING BANKING PROGRAMS					
Semitropic Water Bank ²	0	0	0	0	0
Total Existing Banking Programs	0	0	0	0	0
PLANNED SUPPLIES					
Local Supplies					
Groundwater	0	0	0	0	0
Restored Wells (Saugus Formation) ²	0	0	0	0	0
New Wells (Saugus Formation) ²	0	0	0	0	0
Recycled Water ³	0	1,600	6,300	11,000	15,700
Transfers					
Buena Vista-Rosedale ⁴	11,000	11,000	11,000	11,000	11,000
Total Planned Supplies	11,000	12,600	17,300	22,000	26,700
PLANNED BANKING PROGRAMS					
Rosedale-Rio Bravo ²	0	0	0	0	0
Additional Planned Banking ²	0	0	0	0	0
Total Planned Banking Programs	0	0	0	0	0
Total Existing and Planned Supplies and Banking	126,300	129,800	136,400	143,000	147,700
Total Estimated Demand (w/o conservation) ⁵	100,050	109,400	117,150	128,400	138,300
Conservation ⁶	(8,600)	(9,700)	(10,700)	(11,900)	(12,900)
Total Adjusted Demand	91,450	99,700	106,450	116,500	125,400

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**Table 5.11-3
Projected Average/Normal Year Supplies and Demands (Acre-Feet) (continued)**

Notes:	
1	SWP supplies are calculated by multiplying CLWA's Table A Amount of 95,200 AF by percentages of average deliveries projected to be available (71% in 2010 and 77% in 2025/2030), taken from Table 6-5 of DWR's "Excerpts from Working Draft of 2005 State Water Project Delivery Reliability Report" (May 2005).
2	Not needed during average/normal years.
3	Recycled water supplies based on projections provided in Chapter 4, Recycled Water of the 2005 UWMP.
4	CLWA is in the process of acquiring this supply, primarily to meet the potential demands of future annexations to the CLWA service area. This acquisition is consistent with CLWA's annexation policy under which it will not approve potential annexations unless additional water supplies are acquired. Currently proposed annexations have a demand for about 4,000 AFY of this supply which, if approved, would leave the remaining 7,000 AFY available for potential future annexations. Unless and until any such annexations are actually approved, this supply will be available to meet demands within the existing CLWA service area.
5	Demands are for uses within the existing CLWA service area. Demands for any annexations to the CLWA service area will be added if and when such annexations are approved. Currently proposed annexations have a demand for about 4,000 AFY and, given supplies CLWA is in the process of acquiring, potential future annexations with demands up to an additional 7,000 AFY could eventually be approved (see Footnote 4).
6	Assumes 10 percent reduction on urban portion of total demand resulting from conservation best management practices, as discussed in Chapter 7 of the 2005 UWMP.
<i>Source: CLWA et al. 2005a. Table 6-2.</i>	

**Table 5.11-4
Projected Single Dry Year Supplies and Demands (Acre-Feet)**

	2010	2015	2020	2025	2030
EXISTING SUPPLIES					
Wholesale (Imported)	9,860	9,860	8,480	9,480	9,480
SWP Table A Supply ¹	3,800	3,800	3,800	4,800	4,800
Flexible Storage Account (CLWA)	4,680	4,680	4,680	4,680	4,680
Flexible Storage Account (Ventura County) ²	1,380	1,380	0	0	0
Local Supplies					
Groundwater	47,500	47,500	47,500	47,500	47,500
Alluvial Aquifer	32,500	32,500	32,500	32,500	32,500
Saugus Formation	15,000	15,000	15,000	15,000	15,000
Recycled Water	1,700	1,700	1,700	1,700	1,700
Total Existing Supplies	59,060	59,060	57,680	58,680	58,680
EXISTING BANKING PROGRAMS					
Semitropic Water Bank ³	17,000	0	0	0	0
Total Existing Banking Programs	17,000	0	0	0	0

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**Table 5.11-4
Projected Single Dry Year Supplies and Demands (Acre-Feet) (continued)**

	2010	2015	2020	2025	2030
PLANNED SUPPLIES					
Local Supplies					
Groundwater	10,000	10,000	20,000	20,000	20,000
Restored Wells (Saugus Formation)	10,000	10,000	10,000	10,000	10,000
New Wells (Saugus Formation)	0	0	10,000	10,000	10,000
Recycled Water ⁴	0	1,600	6,300	11,000	15,700
Transfers					
Buena Vista-Rosedale ⁵	11,000	11,000	11,000	11,000	11,000
Total Planned Supplies	21,000	22,600	37,300	42,000	46,700
PLANNED BANKING PROGRAMS					
Rosedale-Rio Bravo ⁶	20,000	20,000	20,000	20,000	20,000
Additional Planned Banking ⁷	0	20,000	20,000	20,000	20,000
Total Planned Banking Programs	20,000	40,000	40,000	40,000	40,000
Total Existing and Planned Supplies and Banking	117,060	121,660	134,980	140,680	145,380
Total Estimated Demand (w/o conservation) ^{8,9}	110,100	120,300	128,900	141,200	152,100
Conservation ¹⁰	(9,500)	(10,700)	(11,700)	(13,100)	(14,200)
Total Adjusted Demand	100,600	109,600	117,200	128,100	137,900

Notes:

- ¹ SWP supplies are calculated by multiplying CLWA's Table A Amount of 95,200 AF by percentages of single dry deliveries projected to be available for the worst case single dry year of 1977 (4% in 2010 and 5% in 2025/2030), taken from Table 6-5 of DWR's "Excerpts from Working Draft of 2005 State Water Project Delivery Reliability Report" (May 2005).
- ² Initial term of the Ventura County entities' flexible storage account is ten years (from 2006 to 2015).
- ³ The total amount of water currently in storage is 50,870 AF, available through 2013. Withdrawals of up to this amount are potentially available in a dry year, but given possible competition for withdrawal capacity with other Semitropic banking partners in extremely dry years, it is assumed here that about one third of the total amount stored could be withdrawn.
- ⁴ Recycled water supplies based on projections provided in Chapter 4, Recycled Water of the 2005 UWMP.
- ⁵ CLWA is in the process of acquiring this supply, primarily to meet the potential demands of future annexations to the CLWA service area. This acquisition is consistent with CLWA's annexation policy under which it will not approve potential annexations unless additional water supplies are acquired. Currently proposed annexations have a demand for about 4,000 AFY of this supply which, if approved, would leave the remaining 7,000 AFY available for potential future annexations. Unless and until any such annexations are actually approved, this supply will be available to meet demands within the existing CLWA service area.
- ⁶ Rosedale-Rio Bravo Water Banking and Recovery Program online in 2006, based on completing CEQA and subsequent adoption by CLWA Board of Directors.
- ⁷ Assumes additional planned banking supplies available by 2014.
- ⁸ Assumes increase in total demand of 10 percent during dry years.
- ⁹ Demands are for uses within the existing CLWA service area. Demands for any annexations to the CLWA service area will be added if and when such annexations are approved. Currently proposed annexations have a demand for about 4,000 AFY and, given supplies CLWA is in the process of acquiring, potential future annexations with demands up to an additional 7,000 AFY could eventually be approved (see Footnote 5).
- ¹⁰ Assumes 10 percent reduction on urban portion of total normal year demand resulting from conservation best management practices (urban portion of total normal year demand x 1.10] * 0.10), as discussed in Chapter 7 of the 2005 UWMP.

Source: CLWA et al. 2005a Table 6-3.

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**Table 5.11-5
Projected Multiple Dry Year Supplies and Demands¹ (Acre-Feet)**

	2010	2015	2020	2025	2030
EXISTING SUPPLIES					
Wholesale (Imported)	32,010	32,910	32,570	32,570	32,570
SWP Table A Supply ²	30,500	31,400	31,400	31,400	31,400
Flexible Storage Account (CLWA) ³	1,170	1,170	1,170	1,170	1,170
Flexible Storage Account (Ventura County) ³	340	340	0	0	0
Local Supplies					
Groundwater	47,500	47,500	47,500	47,500	47,500
Alluvial Aquifer	32,500	32,500	32,500	32,500	32,500
Saugus Formation ⁴	15,000	15,000	15,000	15,000	15,000
Recycled Water	1,700	1,700	1,700	1,700	1,700
Total Existing Supplies	81,210	82,110	81,770	81,770	81,770
EXISTING BANKING PROGRAMS					
Semitropic Water Bank ³	12,700	0	0	0	0
Total Existing Banking Programs	12,700	0	0	0	0
PLANNED SUPPLIES					
Local Supplies					
Groundwater	6,500	6,500	6,500	6,500	6,500
Restored Wells (Saugus Formation) ⁴	6,500	6,500	5,000	5,000	5,000
New Wells (Saugus Formation) ⁴	0	0	1,500	1,500	1,500
Recycled Water ⁵	0	1,600	6,300	11,000	15,700
Transfers					
Buena Vista-Rosedale ⁶	11,000	11,000	11,000	11,000	11,000
Total Planned Supplies	17,500	19,100	23,800	28,500	33,200
PLANNED BANKING PROGRAMS					
Rosedale-Rio Bravo ^{7,8}	5,000	15,000	15,000	15,000	15,000
Additional Banking Programs ^{8,9}	0	5,000	15,000	15,000	15,000
Total Planned Banking Programs	5,000	20,000	30,000	30,000	30,000
Total Existing and Planned Supplies and Banking	116,410	121,210	135,570	140,270	144,970
Total Estimated Demand (w/o conservation)^{10,11}	110,100	120,300	128,900	141,200	152,100
Conservation¹²	(9,500)	(10,700)	(11,700)	(13,100)	(14,200)
Total Adjusted Demand	100,600	106,900	117,200	128,100	137,900

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**Table 5.11-5
Projected Multiple Dry Year Supplies and Demands¹ (Acre-Feet) (continued)**

Notes:

- ¹ Supplies shown are annual averages over four consecutive dry years (unless otherwise noted).
- ² SWP supplies are calculated by multiplying CLWA's Table A Amount of 95,200 AF by percentages of deliveries projected to be available for the worst case four-year drought of 1931-1934 (32% in 2010 and 33% in 2025/2030), taken from Table 6-5 of DWR's "Excerpts from Working Draft of 2005 State Water Project Delivery Reliability Report" (May 2005).
- ³ Based on total amount of storage available divided by 4 (4-year dry period). Initial term of the Ventura County entities' flexible storage account is ten years (from 2006 to 2015).
- ⁴ Total Saugus pumping is the average annual amount that would be pumped under the groundwater operating plan, as summarized in Table 3-6 of the 2005 UWMP $((11,000 + 15,000 + 25,000 + 35,000)/4)$.
- ⁵ Recycled water supplies based on projections provided in Chapter 4, Recycled Water of the 2005 UWMP.
- ⁶ CLWA is in the process of acquiring this supply, primarily to meet the potential demands of future annexations to the CLWA service area. This acquisition is consistent with CLWA's annexation policy under which it will not approve potential annexations unless additional water supplies are acquired. Currently proposed annexations have a demand for about 4,000 AFY of this supply which, if approved, would leave the remaining 7,000 AFY available for potential future annexations. Unless and until any such annexations are actually approved, this supply will be available to meet demands within the existing CLWA service area.
- ⁷ Rosedale-Rio Bravo Water Banking and Recovery Program online in 2006, assuming CEQA complete and adoption by CLWA Board of Directors.
- ⁸ Average dry year period supplies could be up to 20,000 AF for each program depending on storage amounts at the beginning of the dry period.
- ⁹ Assumes additional planned banking supplies available by 2014.
- ¹⁰ Assumes increase in total demand of 10 percent during dry years.
- ¹¹ Demands are for uses within the existing CLWA service area. Demands for any annexations to the CLWA service area will be added if and when such annexations are approved. Currently proposed annexations have a demand for about 4,000 AFY and, given supplies CLWA is in the process of acquiring, potential future annexations with demands up to an additional 7,000 AFY could eventually be approved (see Footnote 6).
- ¹² Assumes 10 percent reduction on urban portion of total normal year demand resulting from conservation best management practices $([\text{urban portion of total normal year demand} \times 1.10] \times 0.10)$, as discussed in Chapter 7 of the 2005 UWMP.

Source: CLWA et al. 2005a. Table 6-4.

CLWA's demands vary from year to year depending on local hydrologic and meteorologic conditions, with demands generally increasing in years of below-average local precipitation and decreasing in years of above-average local precipitation. According to the 2005 UWMP (and shown in Table 5.11-3), CLWA's 2010 average year demand (without conservation) is estimated to be 100,050 AF and 138,300 AF by 2030 (without conservation) (CLWA et al. 2005a). In 2001, CLWA signed the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU). By signing the MOU, CLWA became a member of the California Urban Water Conservation Council (CUWCC) and pledged to implement all cost-effective Best Management Practices (BMPs) for water conservation. CLWA has estimated that conservation measures within the service area can reduce total water demands by approximately 10 percent of the urban portion of total demand. As shown in the tables and stated in the 2005 UWMP, based on conservative water supply and demand assumptions over the next 25 years in combination with conservation of non-essential demand during certain dry years, CLWA and the retail water purveyors will be able to deliver a reliable water supply to its customers.

As shown in Table 5.11-2, in 2002 CLWA stored 24,000 AF of its Table A Amount in an account in the Semitropic Water Storage District's Groundwater Storage Program in Kern County¹ and in 2004, CLWA stored 32,522 AF of available 2003 Table A Amount water in a

¹ The Negative Declaration prepared by CLWA was challenged in California Water Network v. Castaic Lake Water Agency (Ventura County Superior Court Case Number CIV 215327), which held in favor of CLWA. That case is

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second Semitropic account.² 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 (see [Table 5.11-2](#)), is recoverable through 2013 to meet CLWA water demands when needed. Each account has a term of ten years for the water to be withdrawn and delivered to CLWA.³ Current operational planning includes use of the water stored in Semitropic for dry year supply.

Also shown in [Table 5.11-2](#) is CLWA's planned participation in an additional banking program (the Rosedale-Rio Bravo Water Banking Program). The initial offering from the Rosedale-Rio Bravo project, a water banking and exchange program, is for storage and pumpback capacity of 20,000 AFY, with up to 100,000 AF of storage capacity.

As discussed above, other planned supply programs include the Buena Vista Water Storage District/Rosedale-Rio Bravo Water Storage District Water Storage and Recovery Program. The initial offering from the Buena Vista-Rosedale program is up to 11,000 AFY of firm supply. This water supply would primarily meet the potential demands of future annexations to the CLWA service area and, currently, proposed annexations have a demand for about 4,000 AFY of this supply (CLWA et al. 2005a).

Of CLWA's 95,200 AF of annual Table A Amount discussed in the tables above, 41,000 AFY was permanently transferred to CLWA in 1999 by Wheeler Ridge-Maricopa Water Storage District, a member unit of the Kern County Water Agency. With regard to availability, the 2005 *UWMP* provides a discussion of the appropriateness of relying on the 41,000 AFY, which includes: 1) the transfer was completed in 1999 and the Department of Water Resources has allocated and annually delivered water in accordance with the completed transfer; (2) the revised EIR for the transfer corrects the sole defect identified by the Court of Appeal (i.e., tiering off the Monterey Agreement EIR)⁴; (3) the Monterey Amendments settlement agreement expressly authorizes the operation of the SWP in accordance with the Monterey Amendments, which authorize the transfer; (4) the Court of Appeal refused to enjoin the transfer, and instead required preparation of a revised EIR; and (4) the transfer contract remains in full force and effect, and no court has ever questioned their validity or enjoined the use of this portion of CLWA's Table A amount.

WASTEWATER TREATMENT

Wastewater in the Santa Clarita Valley planning area is treated by the Santa Clarita Valley Sanitary District (SCVSD). This district operates two water reclamation plants (WRPs), the Saugus WRP and the Valencia WRP, which provide wastewater treatment in the Santa Clarita

presently on appeal in the Second District Court of Appeal, Sixth Division, Case Number B177978 (CLWA et al. 2005a).

² No legal challenge was made to CLWA's approval of this project or of the Negative Declaration for this project (CLWA et al. 2005a).

³ Thereafter, the remaining amount of project water in the account is forfeited (CLWA et al. 2005a).

⁴ CLWA's EIR prepared in connection with the 41,000 AFY water transfer was challenged in *Friends of the Santa Clara River v. Castaic Lake Water Agency* (Los Angeles County Superior Court, Case Number BS056954) ("Friends"). On appeal, the Court of Appeal, Second Appellate District held that since the 41,000 AFY EIR tiered off the Monterey Agreement EIR that was later decertified, CLWA would also have to decertify its EIR and prepare a revised EIR. CLWA approved the revised EIR in December 2004. Friends was dismissed permanently in February 2005. In January 2005, two new challenges to CLWA's EIR were filed.

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Valley. These facilities are interconnected to form a regional treatment system known as the Santa Clarita Valley Joint Sewerage System (SCVJSS). These two facilities provide primary, secondary and tertiary treatment. The SCVSD has a design treatment capacity of 28.1 million gallons per day (mgd) and currently processes an average flow of 21.1 mgd. The project site is located outside the SCVSD boundary but within the sphere of influence. The project site will require annexation but no sphere boundary change.

The mechanism used to fund expansion projects is the Los Angeles County Sanitation District's (LACSD) Connection Fee Program. Prior to the connection of the local sewer network to the LACSD system, all new users are required to pay their fair share of the LACSD sewerage system expansion through a connection fee. The fees fund treatment capacity expansion and trunk lines, while on-site sewer mains are the responsibility of the developer. The rate at which connections are made and revenues accumulate drives the rate at which periodic expansions of the system are designed and built. However, connection permits are not issued unless it is demonstrated that sufficient capacity exists to serve proposed development. Therefore, the expansion of SCVSD facilities may be immediate if adequate capacity does not exist to serve new users, or the expansion may occur in the future if it is determined that there is adequate capacity to serve new users, but inadequate capacity to serve future development within the tributary area(s) of the affected collection/treatment facilities, thereby necessitating future system expansions. In the latter case, the connection fees paid by new users are deposited into a restricted Capital Improvement Fund (CIF) used solely to capitalize the future expansion of affected system facilities. The cyclical process of building phased expansions and collecting connection fees can continue indefinitely. The only restriction would be when the LACSD runs out of land. Existing facilities can be expanded to handle a daily capacity of 34.1 mgd, which is sufficient to meet demand until 2015. The LACSD does not expect to exceed a daily capacity of 34.1 mgd because connection permits will not be issued that would exceed this amount.

Regional Wastewater Treatment Facilities Plan

The LACSD has prepared a Facilities Plan with a horizon year of 2015 and a Draft EIR. The Facilities Plan estimates future wastewater generation for the probable future service area of the prior County Sanitation Districts 26 and 32 in order to anticipate future treatment capacity and wastewater conveyance needs. According to LACSD estimates, total flows projected from the Santa Clarita Valley in 2015, exclusive of Newhall Ranch, would be 34.1 mgd. As a result of this finding, LACSD proposed to incrementally expand the treatment facilities in two expansions to meet future needs. This two-phase expansion plan, which would increase treatment capacity by approximately 15 mgd, was recently approved. The first phase would expand treatment capacity by approximately 9 mgd (approximately a 47 percent increase). This expansion, when complete, will meet the expected wastewater treatment demand through 2010. The second phase, scheduled to be complete by 2010, would increase treatment capacity by an additional 6 mgd.

Wastewater Collection System

The LACSD wastewater collection system is composed of service connections that tie into the local collection network. This local network, composed of secondary and primary collectors, flows into the LACSD's trunk wastewater mains and the water reclamation plants. The LACSD

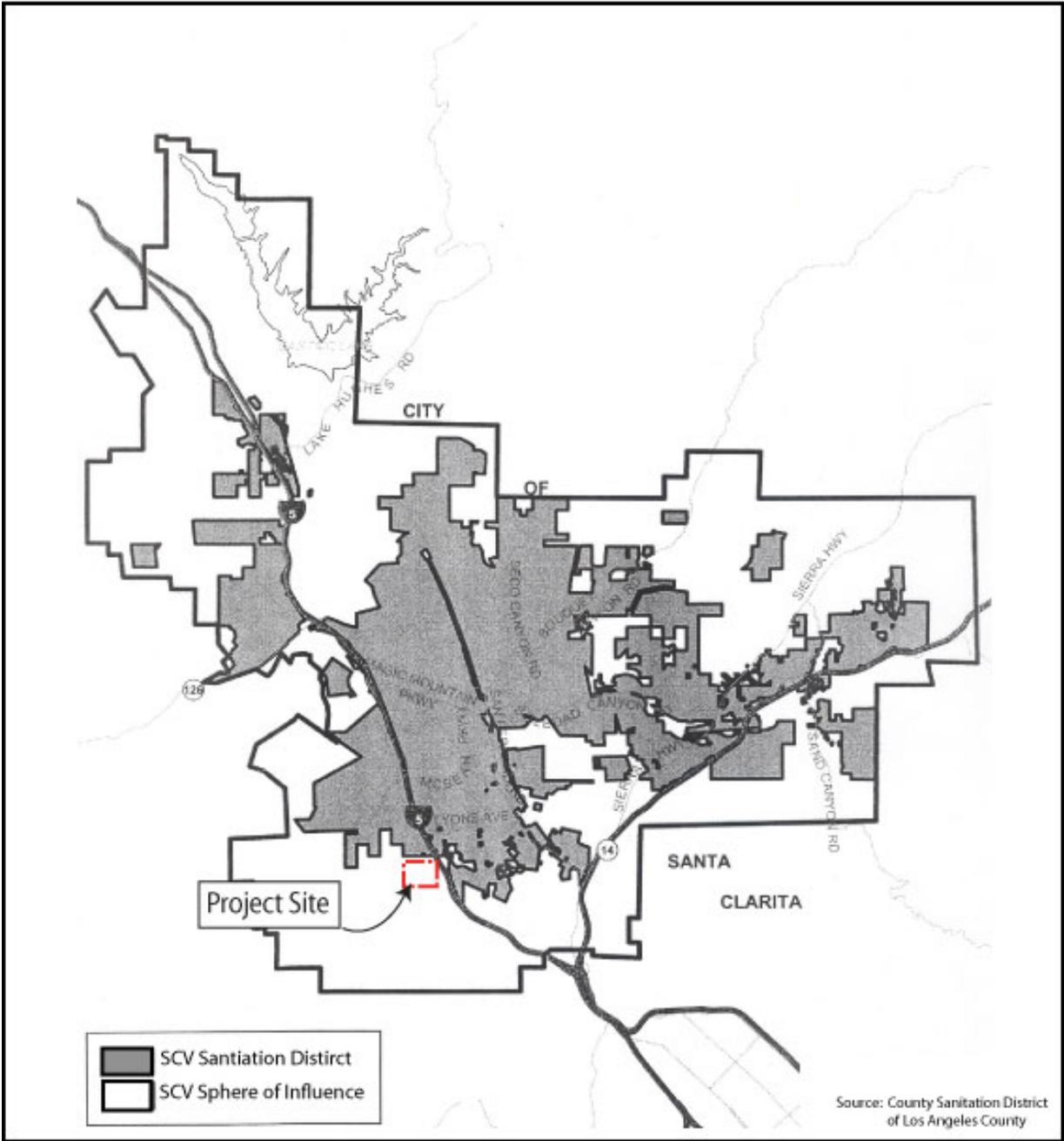
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maintains the wastewater trunk mains that lead to the two reclamation plants, and the local collection network is maintained by the Los Angeles County Department of Public Works Sewer Maintenance Division.

The project site is presently undeveloped and there is no wastewater collection and conveyance system on the property. Sewer lines, although not present within the project boundaries, exist in the vicinity of the project site. Wastewater facilities north of the site are located in The Old Road as close as Sagecrest Circle for the Stevenson Ranch development. To the south, wastewater facilities exist in Calgrove Boulevard as close as the intersection with La Salle Canyon Drive. Exhibit 5.11-2, Santa Clarita Valley Sanitation Districts Current Boundaries and Spheres of Influence shows the location of the SCVSD spheres of influence and the Saugus and Valencia WRPs, which accept flows from the project area.

The County of Los Angeles Public Works Department requires that new subdivision wastewater systems connect to the LACSD's existing sanitary wastewater system. Any developer constructing a new wastewater line would have to coordinate the construction and dedication of any such wastewater line with the County of Los Angeles Public Works Department for future operation and maintenance. It would subsequently be the responsibility of the LACSD to upgrade the wastewater collection and treatment systems by providing relief for existing trunk lines nearing capacity and expanding treatment plants to provide sanitation service to outlying areas.

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Santa Clarita Valley Sanitation District Boundary & Sphere of Influence

Exhibit 5.11-2

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5.11.2 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to water and wastewater. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this Section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- ◆ Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- ◆ Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements;
- ◆ 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; and
- ◆ Result in a determination by the wastewater treatment provider that 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.

5.11.3 IMPACTS AND MITIGATION MEASURES

WATER DISTRIBUTION SYSTEM

- ◆ ***THE PROPOSED PROJECT COULD CREATE ADVERSE IMPACTS ON WATER DISTRIBUTION FACILITIES IN THE PROJECT AREA.***

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: Finished building pad elevations within the project site would range from approximately 1,330 to 1,654 feet above mean sea level (amsl). Thus, service to the site should come from a reservoir with a pad of at least 1,640 feet amsl, with hydraulic grade line (HGL) of 1,670 feet amsl (based upon static pressure of 45 pounds per square inch [psi] or ~ 100 feet of elevation). Valencia Water Company currently provides water service to the Sunset Pointe and Stevenson Ranch developments immediately north of the project site. VWC currently operates Zone III (HGL = 1,550 feet amsl) and Zone IV (HGL = 1,711 feet amsl) facilities in the area of the project site.

Domestic water service to the project site is proposed through the development of an on-site water distribution system. The current tentative map shows the distribution system to consist of service connections and associated piping. The proposed system needs to be capable of providing pressure and required flow under peak hour and fire flow conditions. It should be noted that expansion or development of off-site pumping facilities may be necessary to support the proposed project.

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Should VWC serve the site, connection to the on-site system would be made at the intersection of The Old Road and the northern entrance to the project site at "A" Street. In order to serve demands and fire flows within the proposed development, a 16-inch transmission main to the development in the area of The Old Road and "A" Street would be required.

FIRE FLOWS

Fire-flow factors are specified by the governing fire department on a building-by-building basis at the time of construction. Because product type and material of construction have not been finalized for the proposed project, fire criteria remain at the master planning level. The Los Angeles County Fire Department (LACFD) Fire Flow Requirements by building type are referenced from Azusa Light and Water Department's *Year 2000 Water System Master Plan Update*. This document contains the various demand factors and durations to which a project is subject under LACFD jurisdiction. To be conservative, the highest expected fire-flow demand and duration are assumed for each land use. In summary, the fire flows used for this analysis are shown in Table 5.11-6, Planning Level Fire Flow Requirements.

Table 5.11-6 Planning Level Fire-Flow Requirements

Land Use	Assumed Maximum Square Footage	Required Fire Flow (gpm)	Duration (hours)
Single Family Residential	5,000 to 7,999	2,000	2
Multi-Family Residential	15,000 to 19,999	3,000	3

The backbone of the water system will consist of 16-inch inlet/outlet piping, a 12-inch pipe loop through the proposed project, and service connection to the proposed purveyor's system.

Although the proposed project would utilize water distribution facilities to serve proposed uses, the on-site water system has been designed to meet the pressure and flow performance criteria of each of the potential water purveyors, including fire flow requirements of the LACFD. The project's water system would meet all the design requirements of the respective purveyor, thereby precluding the possibility of adverse impacts on existing off-site water distribution facilities.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

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WATER DEMAND AND SUPPLY

◆ ***THE PROPOSED PROJECT WOULD INCREASE DEMAND ON AVAILABLE WATER SUPPLIES.***

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: At build-out, total water demand for the proposed project is estimated to be approximately 184 AFY based on VWC water use factors (see Table 5.11-7, Estimated Project Water Demand). Approximately 114 AFY would be used for residential requirements and the balance for the irrigation of the parks, disturbed open space areas, and landscaping along major circulation corridors.

Table 5.11-7 Estimated Project Water Demand

Land Use Categories	Proposed Project	Generation Factor (AFY) ¹	Water Use (rounded)
	No. of Units	VWC	VWC
Single Family Residential	93	0.67	62
Multi -Family Residential	93	0.56	52
Parks	1.39	3	4
Open Space	36.29	1	36
Roadway Landscaping/Major Circulation	10.04	3	30
Total			184
Notes:			
¹ Factors provided by VWC. Factors are per unit for residential units and per acre for the balance of the project components shown.			

Using the project demand from Table 5.11-7, maximum day demand and peak-hour demands were calculated in Table 5.11-8, Project Ultimate Development Estimated Maximum Day and Peak-Hour Water Demands. The peaking factors from Table 12 of the *Masterplan for Newhall Division of Newhall County Water District* were used to calculate peak demands in Table 5.11-8, as they are consistent with common industry peaking factors used in Orange and Los Angeles counties. Based on the information contained in Table 5.11-8, the maximum day and peak-hour water demands for the proposed project would be 258.9 and 421.8 gpm, respectively.

Based on the conclusions of the project’s *Water Supply Study* and the discussion provided herein, adequate water supplies would be available to serve the proposed project during normal years, single dry years, and multiple dry years. The timing of the project places it well within the timeframe for calculating “planned future uses” within the 2030 water supply projection included in the *2005 UWMP* (project build-out is expected to be before 2030). Impacts on water supply would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

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Table 5.11-8

Project Ultimate Development Estimated Maximum Day and Peak-Hour Water Demands

Land Use	Gross Acres (AC)	Dwelling Units (DU)	Demand Factor [1]		Annual (AF/YR)	Avg Day (gpd)	Maximum Day Demand [2]		Peak Hour [3]
							(gpd)	(gpm)	(gpm)
Single-Family Residential	58.61	93	0.9	AFY/DU	83.7	74,710	186,775	129.7	207.5
Subtotal			-	-					207.5
Multi-Family Residential	10.25	93	0.4	AFY/DU	37.2	33,204	83,010	57.6	92.2
Subtotal	68.86	186	-	-	120.9	107,914	269,785	187.3	307.2
Park/Passive Park	1.75	-	5.5	AFY/AC	8.25	7,364	18,410	12.78	20.5
Subtotal	70.61	-	-	-	129.15	115,278	288,195	200.08	327.7
Roadway Landscaping/Major Circulation	6.9	-	5.5	AFY/AC	37.95	33,878	84,695	58.82	94.1
Subtotal	77.51				167.1	149,156	372,890	258.9	421.8
Fire Station (exempt)	1.26								
Non-Irrigated Open Space	156.03	-	-	-	-	-	-	-	-
Total	234.8	190			167.1	149,156	372,890	258.9	421.8
					AF/YR	gpd	gpd	gpm	gpm

Notes:
 [1] Demand factors per Newhall County Water District Standards.
 [2] Maximum Day = 2.5 x Average Day Demand.
 [3] Peak Hour = 4.0 x Average Day Demand.
 AF/YR = acre-feet per year gpm = gallons per minute

WASTEWATER CONVEYANCE AND TREATMENT

- ◆ ***THE PROPOSED PROJECT WOULD GENERATE WASTEWATER THAT COULD EXCEED THE CAPACITY OF CONVEYANCE AND TREATMENT FACILITIES THAT SERVE THE PROJECT AREA.***

Level of Significance Before Mitigation: Significant Impact.

Impact Analysis: The proposed wastewater collection system, is shown in Exhibit 5.11-3, Proposed Wastewater Treatment System. The County of Los Angeles Department of Public Works provides sewage flow coefficients for the determination of peak wastewater flow by land use type. The estimated peak wastewater flow for the proposed project is calculated in Table 5.11-9, Project Ultimate Development Estimated Peak Wastewater Flow. In summary, wastewater generated by the proposed project would represent approximately 42,315 gallons per day for average daily flows.

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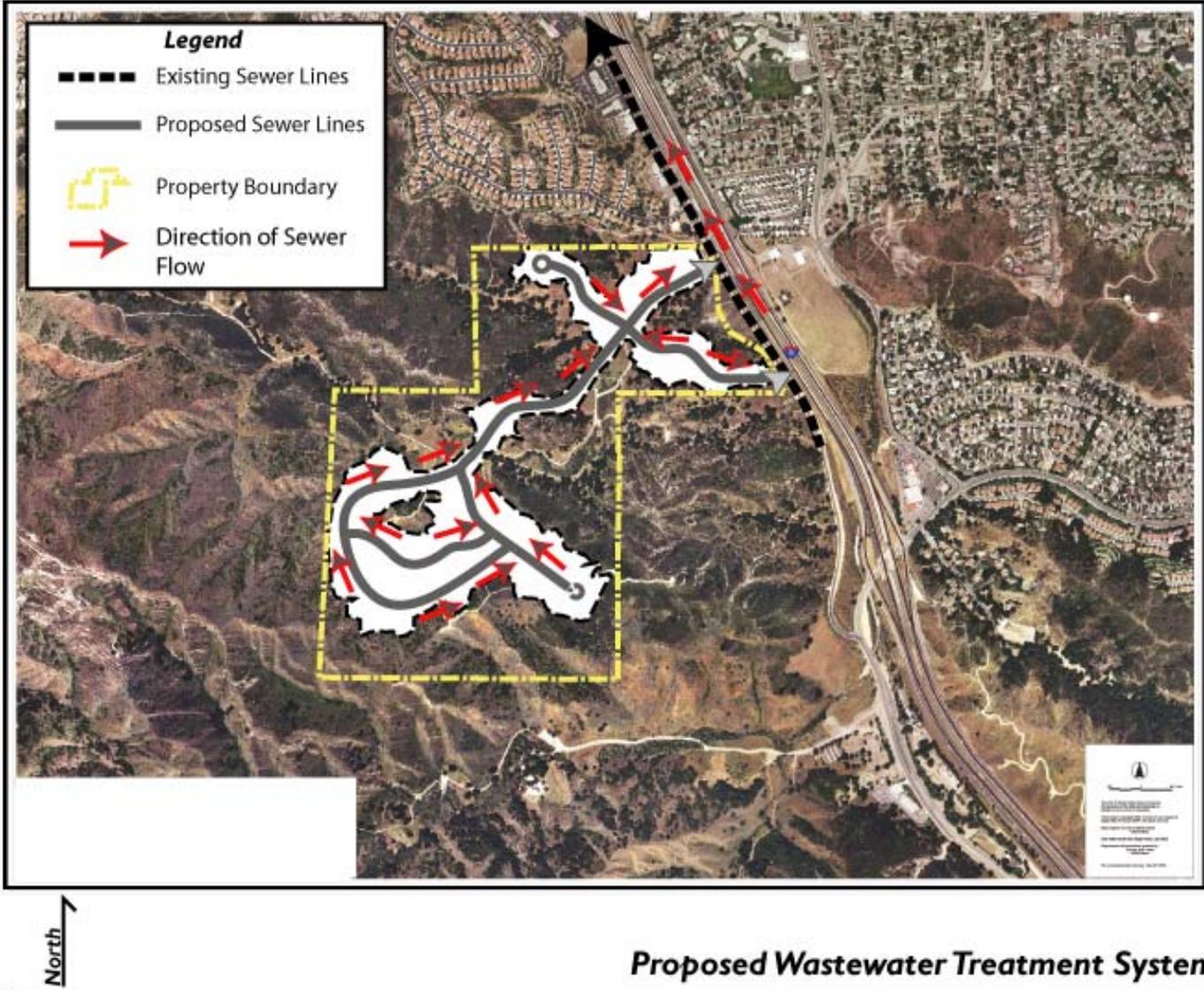


Exhibit 5.11-3

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**Table 5.11-9
Project Ultimate Development Estimated Wastewater Flow**

Land Use	Gross Acres (AC)	Dwelling Units (DU)	Wastewater Generation Factor	Average Flows
Single-Family Residential	58.6	93	260 gpd	24,180 gpd
Subtotal	58.6	93	-	
Senior Condominium	10.25	93	195 gpd	18,135 gpd
Subtotal	10.25	93	-	
Park	1.75			
Open Space	156.03			
Roadways	6.9			
Fire Station (exempt)	1.26			
Total	234.8	186	-	42,315 gpd

[1] Wastewater flow factors are provided by the Sanitation District of Los Angeles County.

The proposed project would utilize an on-site wastewater collection system to convey wastewater flow from the site. The topography of the project site slopes down to the northeast, which is advantageous for gravity sewer design. All flows from the site would be conveyed through the on-site gravity sewer pipe toward The Old Road. Upon reaching The Old Road, the flows would be conveyed through off-site facilities to connection points with the LACSD's trunk sewer lines. The nearest potential connection points to the wastewater collection system, maintained and operated by the Los Angeles County Department of Public Works, are located at Sagecrest Circle and The Old Road. Approval of points of connection and quantification of the available capacity in the affected portions of the County of Los Angeles' local sewer system need to be completed prior to further wastewater system master planning. The County of Los Angeles provides sewage flow factors for the determination of wastewater flow by land use type. Calculation of an estimated wastewater flow for the proposed project is shown in Table 5.11-9. Once flow is conveyed through the on-site branches, it would then enter the off-site facilities leading to the existing Los Angeles County Department of Public Works wastewater system, and ultimately to the LACSD's Valencia trunk sewer and wastewater treatment plants (SCVSD).

It should be noted that before further sewer system master planning can be performed, approval of the points of connection and quantification of the available capacity in the affected portions of the sewer system serving the unincorporated portions of Los Angeles County would need to be completed. Mitigation requiring approval of points of connection and quantification of available capacity, listed below, would ensure that impacts to wastewater conveyance and treatment facilities would be less than significant.

The proposed on-site wastewater collection system has been designed to meet the design requirements of the LACSD for the proposed project's anticipated average daily flows. The proposed project would generate approximately 42,315 gpd of wastewater. The wastewater generated by the proposed project would represent only approximately 0.15 percent of the

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SCVSD 28.1 mgd treatment capacity for average day flows⁵. Furthermore, the County of Los Angeles would not issue connection permits to the sewer system if it cannot be demonstrated that sufficient capacity exists to serve the proposed development. As such, the proposed project could not cause an exceedance of capacity of the wastewater conveyance system or SCVSD treatment plants, since adequate capacity must be demonstrated in order to contribute flows to the system.

The subject site, as shown above in Exhibit 5.11-2 is located outside of the service boundary for the Santa Clarita Valley Sanitation District. The proposed project area will therefore need to be included into the SCVSD service area via annexation. The Los Angeles County Local Agency Formation Commission would be responsible for approving the required annexation. Due to the projects location within the SCVSD Sphere of Influence, its adjacency to the existing SCVSD service boundary, and sufficient wastewater treatment capacity for treatment of project related wastewater flows, impacts resulting from the annexation would be less than significant.

Mitigation Measures:

WW1 The Los Angeles County Sanitation Districts shall review and approve both the points of connection and quantification of the available capacity in the affected portions of the sewer system serving any project proposed within the SCVSD service area boundary.

Level of Significance After Mitigation: Less Than Significant Impact.

5.11.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

WATER DEMAND AND SUPPLY

- ◆ ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED PROJECTS WOULD INCREASE DEMAND FOR WATER SUPPLIES.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: According to the conclusions of the *Water Supply Study* completed for the project, it is expected that adequate water supplies will be available to serve the proposed project and other development within the CLWA service area (including related projects) through 2030 (the planning horizon in the 2005 *UWMP*), during normal years, single dry years, and multiple dry years. Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

⁵ The total permitted capacity of SCVSD facilities is 28.1 million gallons/day. Thus $42,315 \text{ gpd}/28.1 \text{ mgpd} = 0.15\%$

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Level of Significance After Mitigation: Less Than Significant Impact.

CUMULATIVE WASTEWATER CONVEYANCE AND TREATMENT

- ◆ ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED PROJECTS WOULD INCREASE DEMAND FOR WASTEWATER CONVEYANCE AND TREATMENT CAPACITY.***

Level of Significance Prior to Mitigation: Significant Impact.

Impact Analysis: Under average conditions, the proposed project, in conjunction with other related projects, would generate approximately 6.5 million gallons per day (mgd) of peak wastewater flows⁶. The peak wastewater generated by cumulative development would represent approximately 19 percent of the SCVSD's ultimate treatment capacity of 34.1 mgd when planned expansions have been completed at the Santa Clarita Valley Sanitary Districts' two wastewater treatment plants.⁷ The cumulative wastewater demand did not include the wastewater demand associated with the Newhall Ranch Project. The Los Angeles County Sanitation District is requiring Newhall Ranch to construction on-site wastewater treatment facilities capable of treating all wastewater associated with the project. Therefore, no wastewater impacts from Newhall Ranch are anticipated.

Connection fees paid by new users are deposited into a restricted Capital Improvement Fund (CIF) used solely to capitalize the future expansion of affected system facilities. The cyclical process of building phased expansions and collecting connection fees can continue indefinitely without significant impact. Nonetheless, the County of Los Angeles would not issue connection permits to the sewer system if it cannot be demonstrated that sufficient capacity exists to serve a proposed development project. As such, wastewater flows from the proposed project and other related projects could not cause an exceedance of capacity of the wastewater conveyance system or SCVSD treatment plants, since adequate capacity must be demonstrated in order to contribute flows to the system. With implementation of applicable mitigation, which requires approval of points of connection and quantification of the available capacity in the affected portions of the sewer system serving the City of Santa Clarita and the County of Los Angeles, impacts would be less than significant.

Mitigation Measures: Refer to Mitigation Measure WW1. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

⁶ 16,470 Single family dwellings x wastewater generation factor of 260 gpd plus 2688 Multi-family dwellings x generation factor of 195 gpd= 4.8 million gallons per day (mgd) + 11,194,405 sq.ft commercial x 150gpd/1000sq.ft. = 6,485,520 gpd or 6.5mgd. Generation factors provided by County Sanitation Districts of Los Angeles County,

⁷ Telecommunication with Ruth Frazen, Engineering Technician, County Sanitation Districts of Los Angeles County, July 26, 2005.

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