

WATER SUPPLY ASSESSMENT

**Mission Village
Vesting Tentative Tract Map No. 61105**

Prepared for:

**The County of Los Angeles
Department of Regional Planning**

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Prepared by



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1.0 INTRODUCTION

This report provides information necessary to complete the Water Supply Assessment ("WSA") for Mission Village, Vesting Tentative Tract Map No. 61105 ("project"). Mission Village is a development project within the approved Newhall Ranch Specific Plan, located in unincorporated Los Angeles County ("County").

The WSA has been prepared pursuant to the requirements of Senate Bill 610 (Costa; Chapter 643, Stats. 2001) ("SB 610"), which requires public water agencies, parties or purveyors that may supply water to certain proposed development projects to prepare a WSA for use by the County in environmental documentation for such projects, pursuant to the California Environmental Quality Act ("CEQA").¹ This WSA contains information from the 2005 Urban Water Management Plan ("2005 UWMP"), which was adopted by Castaic Lake Water Agency ("CLWA"), Valencia Water Company ("Valencia") and other water purveyors. It also includes published information provided by the California Department of Water Resources ("DWR") concerning the reliability of water supplies delivered to CLWA from the State Water Project ("SWP").

The project site is contiguous with Valencia's existing service area and Valencia is the operator of the public water system that will provide water to the proposed project.^{2, 3}

A WSA is required for any "project" that is subject to CEQA⁴ and proposes, among other things, a residential development of more than 500 dwelling units.⁵ Mission Village is a qualifying project under this definition.⁶ This revised WSA will provide information to the County for its consideration in making a determination, based on the entire record, as to whether there is a sufficient water supply available to meet the Mission Village project's water demand, in addition to Valencia's existing and planned future uses, including agricultural and manufacturing uses.⁷ The County requested that Valencia prepare a WSA for Mission Village, and it reflects the best available information as of the date of this report. Consistent with the approved Newhall Ranch

¹ SB 610 amended section 21151.9 of the California Public Resources Code, and amended sections 10631, 10656, 10910, 19811, 19812, and 19815, repealed section 10913, and added and amended section 10657, of the California Water Code.

² For purposes of this WSA, Valencia is the "public water system," as defined by Water Code §10912(c), because it has 3,000 or more service connections and provides piped water to the public for human consumption.

³ Water Code §10910(b).

⁴ Public Resources Code §21080.

⁵ Water Code §10912(a)(1). This section also includes other types of development that are defined as a "project" by this section of the code.

⁶ Water Code §10912(a)(1). This section also includes other types of development that are defined as a "project" by this section of the code.

⁷ Water Code §10910(c).

Specific Plan, no potable State Water Project (SWP) supplies will be utilized to serve Landmark Village.

1.1 Mission Village

The applicant is requesting approval of the Mission Village residential and commercial mixed-use project (County Project No. 04-181) and associated entitlement actions necessary to develop the project site. The project is a component of the approved Newhall Ranch Specific Plan, and will consist of a maximum total of 4,412 residential home sites, approximately 1.555 million square feet of retail/commercial/mixed uses, an elementary school, fire station, public library, bus transfer station, parks, and other associated amenities and infrastructure improvements. Public and private recreational facilities will be provided, and a network of hiking/biking trails will extend throughout the project site. Build-out of the proposed project would result in the following land use mix:

- 4,030 multi-family residential;
- 382 single-family residential;
- A maximum of approximately 1.555 million square feet of mixed use/commercial;
- 9.5 acre elementary school;
- 25.5-acre Community Park
- 1.5-acre fire station;
- Public and private recreational facilities;
- Trails; and
- Road and other infrastructure improvements.

At build-out, total water demand for the project is estimated to be approximately 2,919 acre-feet per year ("afy"), which includes a potable water demand of 1,676 afy and a recycled or non-potable water demand of 1,243 afy.

1.2 Purpose of WSA

The purpose of this WSA is to provide the County with an analysis of whether Valencia's water system has sufficient projected water supplies to meet the demands of the project, in addition to existing and planned future uses in the Santa Clarita Valley.⁸ Specifically, this WSA evaluates whether the total projected water supply determined to be available during normal, single dry, and multiple dry water years over the next 25 years, will meet the projected water demand

⁸ Water Code §10910(c).

associated with the project, in addition to Valencia's existing and planned future water uses, including agriculture and manufacturing uses.⁹ If the water supply is anticipated to be insufficient, the WSA must describe measures being taken to obtain an adequate supply.¹⁰ The WSA is required to be included in the Environmental Impact Report ("EIR") prepared by the County for the project pursuant to CEQA.¹¹

1.3 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 operates two potable water treatment plants, storage facilities, and over 17 miles of transmission pipelines. CLWA supplements local groundwater supplies with SWP water and other imported water from Northern and Central California. This water is treated and delivered to the local water retailers in the Santa Clarita Valley. The four retail purveyors served by CLWA are Valencia, Los Angeles County Water District #36, Newhall County Water District ("NCWD") and Santa Clarita Water Division of CLWA ("SCWD").

CLWA also delivers highly treated recycled water from one of the two existing water reclamation plants in the Santa Clarita Valley owned by the Sanitation Districts of Los Angeles County. The recycled water is used to meet a portion of the non-potable water demands (golf courses and landscape irrigation, etc.) in the Santa Clarita Valley.

1.4 Valencia Water Company

Valencia is a public water utility regulated by the California Public Utilities Commission ("CPUC"). Valencia'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. Valencia supplies water from groundwater wells, CLWA imported water and recycled water. The City of Santa Clarita and Los Angeles County special landscape irrigation districts are the largest overall water users for irrigation purposes. Magic Mountain Amusement Park is the largest individual commercial water user. The service area includes three golf courses, the Valencia Industrial Center, and the Valencia Commerce Center. All water services are metered, with the exception of fire services.

⁹ Water Code §10910(c)(4).

¹⁰ Water Code §10911(a).

¹¹ Water Code §10911(b), (c).

1.5 2005 Urban Water Management Plan and Recent Events Affecting the SWP System

The California Urban Water Management Planning Act ("UWMP Act") requires most water utilities to update and submit an Urban Water Management Plan ("UWMP") every five years. In 2005, the Valley's UWMP was updated by CLWA, in cooperation with Valencia and the other retail water purveyors. The 2005 UWMP was adopted by CLWA's Board of Directors in November 2005 and by Valencia's Board of Directors in December 2005. The 2005 UWMP is a compilation of information collected from various water resource documents listed in Section 1.6. The 2005 UWMP contains information on water use, water resources, recycled water, water quality, reliability planning, demand management measures, best management practices and water shortage contingency planning.

The WSA also includes information prepared by DWR regarding the reliability of imported water supplies delivered from the SWP, although Mission Village does not rely on these supplies. In December 2007, a federal court imposed interim rules that restrict the operations of both the SWP and the Central Valley Project ("CVP") while a new federal biological opinion for the Delta smelt was prepared by the U.S. Fish and Wildlife Service in 2008. In August 2008, DWR prepared an update to its 2005 Reliability Report, which is issued biennially to indicate how much SWP water is available during varying hydrologic scenarios (i.e., normal and dry years). The DWR 2007 SWP Delivery Reliability Report (August 2008) reduced the average long term reliability of SWP supply from 77% to 66% in order to account for the operational changes required by the federal court to protect the Delta smelt and other constraints on the SWP system.

On November 14, 2008, the California Fish and Game Commission listed the longfin smelt as a threatened species under the California Endangered Species Act. The Commission also voted to change the state-protected status of the Delta smelt from threatened to endangered. In response, on December 9, 2008, the State Water Contractors and others filed litigation challenging the Commission's decision on the longfin smelt. The litigation is still pending, and the outcome of the litigation cannot be predicted at this time.

On December 15, 2008, the U.S. Fish and Wildlife Service issued the new Biological Opinion for the Delta smelt. The new Biological Opinion continues restrictions on SWP and CVP operations that have been in place under the federal court's interim rules concerning the Delta smelt. However, the Biological Opinion also imposed new requirements for the Bay-Delta that may further erode SWP water delivery reliability under the current, constrained operations. In response to the Biological Opinion, on March 5, 2009, the State Water Contractors and others filed litigation challenging the new Biological Opinion. The litigation is still pending, and the outcome of the litigation cannot be predicted at this time.

On January 4, 2009, the National Marine Fisheries Services (NMFS) issued a new Biological Opinion based on its review of the proposed long-term coordinated Central Valley Project/State Water Project (CVP/SWP) operations in the Central Valley, California, and its effects on listed fish and designated and proposed critical habitats. Specifically, the 2009 BO concluded that the CVP/SWP operations are likely to jeopardize continued existence of federally-listed Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, Central Valley steelhead, green sturgeon, and Southern Resident killer whales, and the designated critical habitats of the salmon, steelhead, and sturgeon.

The 2009 BO contains new measures causing water supply impacts, in addition to requiring a number of habitat measures and associated studies. According to the NMFS, the 2009 BO's restrictions on CVP/SWP operations will impact an estimated five to seven percent of the available annual water on average moved by the federal and state pumping plants, or about 330,000 acre-feet per year (afy); however, water operations will not be affected by the 2009 BO immediately and will be tied to water year type. The 2009 BO also includes exception procedures for drought and health and safety issues.

In December 2009, DWR prepared an update to its 2007 Reliability Report. The Draft 2009 SWP Delivery Reliability Report (December 2009) further reduced the average long term reliability of SWP supply from 66% to 60% in order to account for the operational changes required due to federal Biological Opinions to protect endangered fish such as Delta smelt and spring-run salmon, climate change and other constraints on the SWP system. Using the lower percentages from the DWR Draft 2009 SWP Delivery Reliability Report (December 2009), and updating information related to other sources of supply in the Santa Clarita Valley, Tables 1, 2, 3, and 4, below, are consistent with the best available information provided by DWR concerning the long term reliability of SWP supply and other sources of supply.¹²

The total projected water demand for this project is estimated to be 2,919 acre-feet per year and was accounted for in the 2005 UWMP. The timing of the project places it within the timeframe for calculating "planned future uses" within the 25 year water supply projection included in the 2005 UWMP. This information is incorporated by reference in this WSA. SB 610 requires the WSA to document the water demand for the proposed project, in addition to the public water

¹² The information presented in Tables 1-4 of this WSA is based on the 2005 UWMP, with the additional information provided by the DWR Draft 2009 SWP Delivery Reliability Report, December 2009 (and changes and updated information regarding other sources of supply). The discussion of water supply in this WSA and in environmental documents should be tempered, though, by noting that while the Draft 2009 SWP Delivery Reliability Report (December 2009) represents a reasonable scenario as required by CEQA, recent reductions in supply close the gap between the available supply and demand in the future, thereby making the CLWA service area more susceptible to shortages in certain dry years. Accordingly, the reduction in SWP supply reinforces the need to continue diligent efforts to conserve potable water and increase the use of recycled water, both to meet the goals in the 2005 UWMP and to maximize utilization of potable water supplies. CLWA and the retail water purveyors will continue to work diligently with Los Angeles County and the City of Santa Clarita with water conservation ordinances and the enforcement mechanisms to aggressively implement water conservation in the CLWA service area.

system's existing and planned future uses, including agricultural and manufacturing uses. (Water Code §10910(c).) Water Code §10910(c)(2) states that if the proposed project was accounted for in the most recently adopted UWMP, the public water system may incorporate the requested information from the UWMP in preparing the WSA. The 2005 UWMP projects an annual growth rate in water demand of approximately 2.2 percent over a 25-year period for the Santa Clarita Valley. The project's associated water demand was included by Valencia in the water demand projections contained in the 2005 UWMP (see Table 2-6 in the 2005 UWMP); and, therefore, is accounted for in the 2005 UWMP.

1.6 Documents Relied upon in Preparing this WSA

The following list identifies the documentation that has been relied upon in the preparation of this WSA. The documents are incorporated by reference in this WSA as if fully set forth herein. Copies of the referenced documents are available for review at Valencia Water Company by contacting Robert J. DiPrimio, (661) 295-6501, and can be obtained upon the payment of the costs of reproduction. These documents, which are part of Valencia Water Company's record for the preparation of this WSA, are organized below by subject matter and are presented chronologically (earliest first):

DWR Documents

California Department of Water Resources, Groundwater Basins in California, Bulletin 118-80, January 1980. (DWR Bulletin 118-80, 1980).

California Department of Water Resources, The State Water Project Delivery Reliability Report 2002, May 2003. (DWR Reliability Report, 2003).

California Department of Water Resources, California's Groundwater, Bulletin 118, Santa Clara River Valley Groundwater Basin, Santa Clara River Valley East Subbasin, February, 2004.

California Department of Water Resources, Excerpts from the Working Draft of 2005 State Water Project Delivery Reliability, May 25, 2005. (DWR Reliability Report Excerpts, 2005)

California Department of Water Resources, The State Water Project Delivery Reliability Report 2005, Final, April 2006. (DWR Reliability Report, 2006).

California Department of Water Resources, The State Water Project Delivery Reliability Report 2007, Draft, December 2007. (DWR Reliability Report Draft, 2007).

California Department of Water Resources, The State Water Project Delivery Reliability Report 2007, Final, August 2008. (DWR Reliability Report, 2007).

California Department of Water Resources, The State Water Project Delivery Reliability Report 2009, Draft, December 2009. (DWR Draft Reliability Report Draft, 2009).

CLWA Documents

Water Supply Contract Between the State of California Department of Water Resources and CLWA, 1963 (plus amendments, including the "Monterey Amendment," 1995, and Amendment No. 19, 1999, the transfer of 41,000 acre-feet of entitlement from Kern County Water Agency to CLWA).

2002 Draft Recycled Water Master Plan prepared for CLWA by Kennedy/Jenks Consultants.

2002 Semitropic Groundwater Storage Program and Point of Delivery Agreement Among the Department of Water Resources of the State of California, CLWA and Kern County Water Agency.

2003 Semitropic Groundwater Storage Program prepared for CLWA by Kennedy/Jenks Consultants.

Water Supply Reliability Plan Draft Report prepared for CLWA by Kennedy/Jenks Consultants, September 2003.

Draft Environmental Impact Report – Supplemental Water Project Transfer of 41,000 acre-feet of State Water Project Table A Amount, prepared for CLWA by Science Applications International Corporation, June 2004 (SCH No. 1998041127).

Final Environmental Impact Report – Supplemental Water Project Transfer of 41,000 acre-feet of State Water Project Table A Amount, prepared for CLWA by Science Applications International Corporation, December 2004 (SCH No. 1998041127).

Draft Environmental Impact Report - Rosedale-Rio Bravo Water Storage District (RRBWSD) Water Banking and Exchange Program, prepared for CLWA by Science Applications International Corporation, August 2005 (SCH No. 2005061157).

Final Environmental Impact Report - Rosedale-Rio Bravo Water Storage District (RRBWSD) Water Banking and Exchange Program, prepared for CLWA by Science Applications International Corporation, October 2005 (SCH No. 2005061157).

Draft Environmental Impact Report - Castaic Lake Water Agency Water Acquisition from the Buena Vista Water Storage District and Rosedale-Rio Bravo Water Storage District Water Banking and Recovery Program, prepared for CLWA by Science Applications International Corporation, June 2006 (SCH No. 2006021003).

Final Environmental Impact Report - Castaic Lake Water Agency Water Acquisition from the Buena Vista Water Storage District and Rosedale-Rio Bravo Water Storage District Water Banking and Recovery Program, prepared for CLWA by Science Applications International Corporation, October 2006 (SCH No. 2006021003).

Draft Program Environmental Impact Report - Recycled Water Master Plan, prepared for CLWA by Bon Terra Consulting, November 2006 (SCH No. 2005041138).

Final Program Environmental Impact Report - Recycled Water Master Plan, prepared for CLWA by Bon Terra Consulting, March 2007 (SCH No. 2005041138).

CLWA Letter to City of Santa Clarita and Los Angeles County Department of Regional Planning, June 2007.

CLWA Letter to Los Angeles County Department of Regional Planning, February 2008.

CLWA Data Document/Capital Improvement Program, dated November 12, 2008.

CLWA Letter to Los Angeles County Department of Regional Planning, February 24th, 2010 providing comments on the One Valley One Vision Draft Environmental Impact Report, including revised estimates of the water supply projections contained in the 2005 UWMP, (CLWA Letter, February 2010).

Groundwater Documents

Memorandum of Understanding Between the Santa Clara River Valley Upper Basin Water Purveyors and United Water Conservation District, August 2001. (MOU, 2001).

2001 Update Report: Hydrogeologic Conditions in the Alluvial and Saugus Formation Aquifer Systems, prepared for Santa Clarita Valley Water Purveyors by Richard C. Slade and Associates, LLC, July 2002. (Slade, 2002).

Groundwater Management Plan - Santa Clara River Valley Groundwater Basin, East Subbasin, prepared for CLWA by Luhdorff & Scalmanini Consulting Engineers, December 2003.

Regional Groundwater Flow Model for the Santa Clarita Valley: Model Development and Calibration, prepared for Upper Basin Water Purveyors (CLWA, CLWA Santa Clarita Water Division, Newhall County Water District and Valencia Water Company) by CH2M HILL, April 2004.

Analysis of Perchlorate Containment in Groundwater Near the Whittaker-Bermite Property, Santa Clarita, California, prepared for Upper Basin Water Purveyors in Support of the Department of Health Services 97-005 Permit Application by CH2M HILL, December 2004.

Analysis of Near-Term Groundwater Capture Areas for Production Wells Located Near the Whittaker-Bermite Property (Santa Clarita, California), prepared for Upper Basin Water Purveyors in support of the amended 2000 UWMP by CH2M HILL, December 21, 2004.

Impact and Response to Perchlorate Contamination, Valencia Water Company Well Q2, prepared by Luhdorff & Scalmanini Consulting Engineers, April 2005 (Q2 Report).

Mitigated Negative Declaration - Groundwater Containment, Treatment and Restoration Project, CLWA, August 2005.

Interim Remedial Action Plan, to facilitate and restore pumping of groundwater from two Saugus Formation production wells impacted by perchlorate, prepared for Castaic Lake Water Agency by Kennedy/Jenks Consultants, and approved by the Department of Toxic Substances Control, December 2005.

Analysis of Groundwater Basin Yield, Upper Santa Clara River Groundwater Basin, East Subbasin, Los Angeles County, California, prepared in support of the August 2001 Memorandum of Understanding between the Upper Basin Water Purveyors and the United Water Conservation District, prepared by CH2M HILL in cooperation with Luhdorff & Scalmanini, August 2005. (Basin Yield Study, 2005).

Technical Memorandum: *Potential Effects of Climate Change on Groundwater Supplies for the Newhall Ranch Specific Plan, Santa Clarita Valley, California*, prepared by GSI Water Solutions, Inc. (John Porcello), dated March 18, 2008.

Analysis of Groundwater Supplies and Groundwater Basin Yield, Upper Santa Clara River Groundwater Basin, East Subbasin, August 2009, prepared by Luhdorff & Scalmanini and GSI Water Solutions. (Basin Yield Study, 2009).

Water Planning Documents

2005 Urban Water Management Plan, prepared for Castaic Lake Water Agency, CLWA Santa Clarita Water Division, Newhall County Water District, Valencia Water Company, Los Angeles County Waterworks District No. 36, prepared by Black & Veatch, Nancy Clemm, Kennedy Jenks Consultants, Jeff Lambert, Luhdorff & Scalmanini, Richard Slade and Associates, November 2005. (2005 UWMP).

Santa Clarita Valley Water Report 2005, prepared for CLWA, Los Angeles County Waterworks District No. 36, Santa Clarita Water Division, Newhall County Water District and Valencia Water Company by Luhdorff and Scalmanini, Consulting Engineers, April 2006. (SCVWR, 2006).

Santa Clarita Valley Water Report 2006, prepared for CLWA, Los Angeles County Waterworks District No. 36, Santa Clarita Water Division, Newhall County Water District and Valencia Water Company by Luhdorff and Scalmanini, Consulting Engineers, May 2007. (SCVWR, 2007).

Santa Clarita Valley Water Report 2007, prepared for CLWA, Los Angeles County Waterworks District No. 36, Santa Clarita Water Division, Newhall County Water District and Valencia Water Company by Luhdorff and Scalmanini, Consulting Engineers, April 2008. (SCVWR, 2008).

Santa Clarita Valley Water Report 2008, prepared for CLWA, Los Angeles County Waterworks District No. 36, Santa Clarita Water Division, Newhall County Water District and Valencia Water Company by Luhdorff and Scalmanini, Consulting Engineers, April 2009. (SCVWR, 2009).

Santa Clarita Valley Water Report 2009, prepared for CLWA, Los Angeles County Waterworks District No. 36, Santa Clarita Water Division, Newhall County Water District and Valencia Water Company by Luhdorff and Scalmanini, Consulting Engineers, May 2010. (SCVWR, 2010).

Newhall Ranch Planning Documents

Agreement between Newhall Land and Farming Company and Semitropic Water Storage District for a Newhall-Semitropic Water Banking and Exchange Program, 2001.

Nickel Water contract and environmental documentation (see, Newhall Ranch Revised Draft Additional Analysis, Volume II, prepared by Impact Sciences, Inc., for Los Angeles County, November 2002, Appendix 2.5(b), (c)).

Los Angeles County. 2003. Additional CEQA Findings Regarding the Newhall Ranch Final Additional Analysis to the Partially Certified Final EIR for the Newhall Ranch Specific Plan and Water Reclamation Plant. March 2003. (Los Angeles County 2003).

Revised Additional Analysis to the Newhall Ranch Specific Plan and Water Reclamation Plant Final Environmental Impact Report, Volume VIII (Final Revised Text, Figures and Tables),

(SCH No. 95011015) prepared by Impact Sciences, Inc. for Los Angeles County Department of Regional Planning, May 2003. (Newhall Ranch, 2003).

2.0 WATER SUPPLY ASSESSMENT

The preparation of this WSA relies upon information from the 2005 UWMP and numerous water resource and planning documents listed in Section 1.6. Based on this supporting information, Valencia concludes that there is sufficient water supply available to meet the Mission Village project demand, in addition to Valencia's existing and other planned future uses, including agricultural and manufacturing uses.

Valencia and CLWA have existing water entitlements, rights, and contracts to meet future demand as needed over time, and have committed sufficient capital resources and planned investments in various water programs and facilities to serve all of its existing and planned customers. Valencia also has identified specific water supplies provided by the developer combined with operational strategies and a prudent and flexible management approach that demonstrates water supply reliability for the Mission Village project.

The project is part of the approved Newhall Ranch Specific Plan. The Specific Plan identified four primary sources of supply: (a) Newhall Ranch agricultural water (from the Alluvial aquifer); (b) recycled water from the Newhall Ranch Water Reclamation Plant ("Newhall WRP") and the existing Valencia WRP; (c) imported water supply referred to as Nickel Water (not a part of the SWP); and (d) Semitropic Groundwater Bank. Additional information about these sources and their use is discussed in the previously certified Newhall Ranch Specific Plan Program EIR (March 9, 1999) and the Newhall Ranch Revised Additional Analysis, Vol. VIII (May 2003).

In 2009, Valencia's service area-wide demands were 30,355 af, and the total municipal demand for both imported, groundwater and non-potable recycled water in CLWA's service area was approximately 70,000 af. Based on information provided by the project's consultant, Valencia has estimated that the project will require approximately 2,919 afy of water consisting of 1,676 af of potable water and 1,243 af of non-potable (recycled) water at build-out.

Provided below is a summary of water supply and demand projections for all of the scenarios (average/normal year, single dry year and multiple dry year) presented in the 2005 UWMP that address the SB610 requirements for this project. The 2005 UWMP projections have been revised based on updated water supply projections provided to Los Angeles County Regional Planning Department by CLWA in their letter dated February 24, 2010.

The 2005 UWMP contains information about water use (Chapter 2), water resources (Chapter 3), recycled water (Chapter 4), water quality (Chapter 5), reliability planning (Chapter 6), demand management measures (Chapter 7) and shortage contingency planning (Chapter 8).

All four of the primary sources of water identified in the approved Newhall Ranch Specific Plan are included as part of the updated 2005 UWMP projections. The Newhall Ranch agricultural water is included with the existing Alluvial aquifer supplies resulting in no net increase in

groundwater use from build-out of the project. Recycled water from the Newhall Ranch WRP and the Valencia WRP are also included as part of the planned water supplies for the project and included in the 2005 UWMP. The other two Specific Plan supplies (imported water referred to as Nickel Water and the Semitropic Water Bank-Newhall Land) are available, but are not needed to meet the water demand for the Mission Village project.

2.1 Average/Normal Year, Single Dry Year and Multiple Dry Year Water Assessment

The amount of available water supply is summarized in Table 1 below. Table 1 is not intended to be an operational plan for how supplies would be used in a particular year, but rather identifies the complete range of water supplies available under a range of hydrologic conditions. Diversity of supply allows Valencia 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 with substances such as perchlorate.

It is the stated goal of Valencia, CLWA 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 25 years in combination with conservation of non-essential demand during certain dry years, the water supply plan described in the 2005 UWMP successfully achieves this goal.

Table 1: Summary of Current and Planned Water Supplies and Banking Programs(1)

Water Supply Sources	Supply (af)					
	2007	2010	2015	2020	2025	2030
Existing Supplies (1)						
Wholesale (Imported)	61,800	75,787	75,787	74,407	74,407	74,407
SWP Table A Supply (2)	57,120	57,120	57,120	57,120	57,120	57,120
Buena Vista-Rosedale	0	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land	0	1,607	1,607	1,607	1,607	1,607
Flexible Storage Account (CLWA) (3)	4,680	4,680	4,680	4,680	4,680	4,680
Flexible Storage Account (Ventura County) (3) (4)	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	103,500	123,487	123,487	122,107	122,107	122,107
Existing Banking Programs (3)						
Semitropic Water Bank (5)	50,870	50,870	0	0	0	0
Rosedale-Rio Bravo (7)	64,898	64,898	64,898	64,898	64,898	64,898
Semitropic Water Bank Newhall Land (8)	0	18,828	18,828	18,828	18,828	18,828
Total Existing Banking Programs	115,768	134,596	83,726	83,726	83,726	83,726
Planned Supplies (1)						
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 - CLWA (6)	0	0	1,600	6,300	11,000	15,700
Recycled Water - Newhall Ranch	0	0	1,500	2,500	3,500	5,400
Total Planned Supplies	0	10,000	13,100	28,800	34,500	41,100
Planned Banking Programs (3)						
Additional Planned Banking	0	0	20,000	20,000	20,000	20,000
Total Planned Banking Programs	0	0	20,000	20,000	20,000	20,000

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" are total amounts currently in storage and "Planned Banking Programs" are total amounts projected to be available.
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, based on Tables 6-12 and 6-13 of DWR's "State Water Project Delivery Reliability Report 2009". Year 2030 figure is calculated by multiplying by DWR's 2029 percentage of 60%.
3. Supplies shown are total amounts that can be withdrawn, and would typically be used only during dry years. Each water bank has annual limitations on withdrawals that are reflected in Tables 3 and 4.
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 CLWA's 2005 UWMP Chapter 4, Recycled Water.
7. CLWA has 64,898 af of recoverable water as of 12/31/09 in the Rosedale-Rio Bravo Water Banking and Recovery Program.
8. Supplies shown are the total amounts currently in storage. As of December 31, 2009, there is 18,828 af of water stored in the Semitropic Groundwater Storage Bank by The Newhall Land and Farming Company for the Newhall Ranch Specific Plan. The stored water can be extracted from the bank in dry years in amounts up to 4,950 afy. Newhall Ranch is located within the CLWA service area.

The subject of perchlorate contamination and its impact on groundwater supplies was extensively discussed in the 2005 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. The reliability analysis provided in the 2005 UWMP takes into account the impact on water supply operations while the planning, design and construction of perchlorate treatment, containment and other restoration activities are implemented. For additional information on this topic, please see Chapters 5 and 6, Appendixes D and E in the 2005 UWMP and the latest annual Santa Clarita Valley Water Report.

2.1.1 Average/Normal Water Year

Table 2 summarizes the water supplies available to Valencia, CLWA and the other retail water purveyors over the 25 year planning period during an average/normal year. The water supplies are broken down into existing and planned water supply sources, including wholesale (imported) water, local supplies, transfers, and banking programs. Demands are shown with and without the effects of an assumed 10 percent urban demand reduction resulting from conservation.

Table 2: Projected Average/Normal Year Supplies and Demands

Water Supply Sources	Supply (af)				
	2010	2015	2020	2025	2030
Existing Supplies					
Wholesale (Imported)	69,727	69,727	69,727	69,727	69,727
SWP Table A Supply (1)	57,120	57,120	57,120	57,120	57,120
Buena Vista-Rosedale	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land	1,607	1,607	1,607	1,607	1,607
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	117,427	117,427	117,427	117,427	117,427
Existing Banking Programs					
Semitropic Water Bank (2)	0	0	0	0	0
Rosedale-Rio Bravo (2)	0	0	0	0	0
Semitropic Water Bank – Newhall Land (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 - CLWA (3)	0	1,600	6,300	11,000	15,700
Recycled Water - Newhall Ranch	0	1,500	2,500	3,500	5,400
Total Planned Supplies	0	3,100	8,800	14,500	21,100
Planned Banking Programs					
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	117,427	120,527	126,227	131,927	138,527
Total Estimated Demand (w/o conservation) (4)	100,050	109,400	117,150	128,400	138,300
Conservation (5)	(8,600)	(9,700)	(10,700)	(11,900)	(12,900)
Total Adjusted Demand	91,450	99,700	106,450	116,500	125,400

- SWP supplies are calculated by multiplying CLWA's Table A Amount of 95,200 af by percentages of average deliveries projected to be available, based on Tables 6-12 and 6-13 of DWR's "State Water Project Delivery Reliability Report 2009". Year 2030 figure is calculated by multiplying by DWR's 2029 percentage of 60%.
- Not needed during average/normal years.
- Recycled water supplies based on projections provided in CLWA's 2005 UWMP Chapter 4, Recycled Water.
- Demands are for uses within the existing CLWA service area. Demands for any annexations to the CLWA service area are not included.
- Assumes 10 percent reduction on urban portion of total demand resulting from conservation best management practices, as discussed in CLWA's 2005 UWMP, Chapter 7.

2.1.2 Single-Dry Year

Table 3 summarizes the existing and planned water supplies available to Valencia, CLWA and the other retail water purveyors over the 25 year planning period should a single-dry event occur, similar to the drought that occurred in California in 1977. Demand during single-dry years was assumed to increase by 10 percent. During prolonged dry periods, experience indicates that a reduction in demand of 10 percent is achievable through the implementation of conservation best management practices.

Table 3: Projected Single-Dry Year Supplies and Demands

Water Supply Sources	Supply (af)				
	2010	2015	2020	2025	2030
Existing Supplies					
Wholesale (Imported)	25,331	26,283	25,855	26,807	27,759
SWP Table A Supply (1)	6,664	7,616	8,568	9,520	10,472
Buena Vista-Rosedale	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land	1,607	1,607	1,607	1,607	1,607
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	74,531	75,483	75,055	76,007	76,959
Existing Banking Programs					
Semitropic Water Bank (3)	17,000	0	0	0	0
Rosedale-Rio Bravo (5)	20,000	20,000	20,000	20,000	20,000
Semitropic Water Bank – Newhall Land (10)	4,950	4,950	4,950	4,950	4,950
Total Existing Banking Programs	41,950	24,950	24,950	24,950	24,950
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 - CLWA (4)	0	1,600	6,300	11,000	15,700
Recycled Water - Newhall Ranch	0	1,500	2,500	3,500	5,400
Total Planned Supplies	10,000	13,100	28,800	34,500	41,100
Planned Banking Programs					
Additional Planned Banking (6)	0	20,000	20,000	20,000	20,000
Total Planned Banking Programs	0	20,000	20,000	20,000	20,000
Total Existing and Planned Supplies and Banking	126,481	133,533	148,805	155,457	163,009
Total Estimated Demand (w/o conservation) (7) (8)	110,100	120,300	128,900	141,200	152,100
Conservation (9)	(9,500)	(10,700)	(11,700)	(13,100)	(14,200)
Total Adjusted Demand	100,600	109,600	117,200	128,100	137,900

- SWP supplies are calculated by multiplying CLWA's Table A Amount of 95,200 af by percentages of single dry year deliveries projected to be available on Tables 6-4 and 6-13 of DWR's "State Water Project Delivery Reliability Report 2009". Year 2030 figure is calculated by multiplying by DWR's 2029 percentage of 11%.
- Initial term of the Ventura County entities' flexible storage account is ten years (from 2006 to 2015).
- 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.
- Recycled water supplies based on projections provided in CLWA's 2005 UWMP Chapter 4, Recycled Water.
- CLWA has 64,898 af of recoverable water as of 12/31/09 in the Rosedale-Rio Bravo Water Banking and Recovery Program.
- Assumes additional planned banking supplies available by 2014.
- Assumes increase in total demand of 10 percent during dry years.
- Demands are for uses within the existing CLWA service area. Demands for any annexations to the CLWA service area are not included.
- 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 CLWA's 2005 UWMP, Chapter 7.
- Delivery of stored water from the Newhall Land Semitropic Groundwater Bank requires further agreements between CLWA and Newhall Land.

2.1.3 Multiple Dry Years

Table 4 summarizes the existing and planned water supplies available to Valencia, CLWA and the other retail water purveyors over the 25 year planning period should a four year multiple dry year event occur, similar to the drought that occurred in California during the years 1931 to 1934. Demand during dry years was assumed to increase by 10 percent. During prolonged dry periods, experience indicates that a reduction in demand of 10 percent is achievable through the implementation of conservation best management practices.

Table 4: Projected Multiple-Dry Year Supplies and Demands (1)

Water Supply Sources	Supply (af)				
	2010	2015	2020	2025	2030
Existing Supplies					
Wholesale (Imported)	46,485	46,485	47,097	47,097	47,097
SWP Table A Supply (2)	32,368	32,368	33,320	33,320	33,320
Buena Vista-Rosedale	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land	1,607	1,607	1,607	1,607	1,607
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	95,685	95,685	96,297	96,297	96,297
Existing Banking Programs					
Semitropic Water Bank (3)	12,700	0	0	0	0
Rosedale-Rio Bravo (6) (7)	5,000	15,000	15,000	15,000	15,000
Semitropic Water Bank – Newhall Land (12)	4,950	4,950	4,950	4,950	4,950
Total Existing Banking Programs	22,650	19,950	19,950	19,950	19,950
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
Recycled Water - Newhall Ranch	0	1,500	2,500	3,500	5,400
Total Planned Supplies	6,500	9,600	15,300	21,000	27,600
Planned Banking Programs					
Additional Planned Banking (7) (8)	0	5,000	15,000	15,000	15,000
Total Planned Banking Programs	0	5,000	15,000	15,000	15,000
Total Existing and Planned Supplies and Banking	124,835	130,235	146,547	152,247	158,847
Total Estimated Demand (w/o conservation) (9) (10)	110,100	120,300	128,900	141,200	152,100
Conservation (11)	(9,500)	(10,700)	(11,700)	(13,100)	(14,200)
Total Adjusted Demand	100,600	109,600	117,200	128,100	137,900

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 average deliveries projected to be available during the worst case four-year drought of 1931-1934 as provided in Tables 6-4 and 6-13 of DWR's "State Water Project Delivery Reliability Report 2009." Year 2030 figure is calculated by multiplying by DWR's 2029 percentage of 35%.
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 CLWA's 2005 UWMP Chapter 4, Recycled Water.
6. CLWA has 64,898 af of recoverable water as of 12/31/09 in the Rosedale-Rio Bravo Water Banking and Recovery Program.
7. 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.
8. Assumes additional planned banking supplies available by 2014.
9. Assumes increase in total demand of 10 percent during dry years.
10. Demands are for uses within the existing CLWA service area. Demands for any annexations to the CLWA service area are not included.
11. 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 CLWA's 2005 UWMP, Chapter 7.
12. Delivery of stored water from the Newhall Land Semitropic Groundwater Bank requires further agreements between CLWA and Newhall Land.

3.0 IDENTIFICATION OF EXISTING WATER SUPPLY SOURCES

3.1 Annual Existing Water Supply Entitlements, Water Rights, or Water Service Contracts

The first substantive "content" requirement for a WSA is the identification and description of the existing water supply sources in the public water system that will serve the project. Water Code §10910(d) requires that the WSA identify any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and describe the quantities of water received in prior years by the public water system. The identification of existing water supplies must be demonstrated by providing information related to the following:

- Written contracts or other proof of entitlement to an identified water supply;
- Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system;
- Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply; and
- Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

The proposed project has independent rights to several sources of water. They are:

- Newhall Ranch Agricultural Water (from the Alluvial aquifer);
- Recycled Water generated by the Newhall Ranch WRP;
- Imported Nickel Water (not a part of the SWP); and

- Newhall Land Semitropic Groundwater Banking Project.

In addition to the independent sources listed above, the proposed project has identified the Valencia Water Reclamation Plant (Valencia WRP) as an available source of recycled water for the project. Wastewater generated by the proposed project would be pumped to the Valencia WRP for treatment. For additional information regarding these supplies, please see *Newhall Ranch Revised Additional Analysis, Volume VIII*, (May 2003).

The potable and non-potable water supplies identified to serve the Newhall Ranch Specific Plan and the amounts needed to serve the project as well as previously completed WSAs associated with Newhall Ranch are presented below:

Table 5: Newhall Ranch Specific Plan, Summary of Water Supply and Demand

Newhall Ranch Specific Plan Summary of Water Supply and Demand For Proposed Project and Previously Completed WSAs					
		Supply	Completed WSA ₁ Demand	Mission Village Demand	Total Demand ₂
		(Acre-Feet/Year)	(Acre-Feet/Year)	(Acre-Feet/Year)	(Acre-Feet/Year)
Potable Water		8,645			
	Newhall Agricultural Water	7,038	608	1,676	2,284
	Nickel Water	1,607	0	0	0
Non-Potable Water		9,035			
	Newhall Ranch Recycled Water	5,344	0	0	0
	Valencia Water Reclamation Plant	3,691	364	1,243	1,607
Total Water Supplies		17,680	972	2,919	3,891
Banking Programs					
	Semitropic Groundwater Banking Project	4,950	0	0	0

- (1) Water demand from completed Landmark Village WSA, January 2010.
- (2) Summary of demands from previously completed Newhall Ranch WSA (Landmark Village) and the proposed project.

The 2005 UWMP summarizes the current water supplies available for the project and the Santa Clarita Valley as a whole. Such supplies are derived from five primary sources:

- Groundwater from the Alluvial aquifer;
- Groundwater from the Saugus Formation;
- SWP supplies and other imported sources;
- Dry-year groundwater banking programs; and
- Recycled water.

Within the CLWA service area, these sources of water supply can be characterized as: (1) *local supplies*, consisting of groundwater and recycled water; and (2) *imported supplies*, transported via the SWP consisting of SWP contract amounts, other imported water sources and dry year supplies delivered from groundwater banking programs. As required by SB 610 (Water Code §10910(d)), Chapter 2 of the 2005 UWMP and the SCVWR 2009 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 1980. Also, Section 1.6, above, contains a list of documents identifying the existing water supply entitlements, water rights, or water service contracts relevant to meet the project's water demand as well as future estimated demands reported in the 2005 UWMP.

Potential future water sources include acquisition of additional imported water supplies, recycled water, desalination, storm water runoff, increased short term pumping from the Saugus

Formation during dry years and additional groundwater banking programs. Demand side management programs (conservation) are also considered an important component of water supply resulting from efforts by CLWA, Valencia and the other retailers to reduce long-term water demands.

3.2 Groundwater

Water Code §10910(f) requires a WSA to include specific information describing groundwater resources if the water supply for a proposed project includes groundwater. Over the last 25 years, the water purveyors have developed a groundwater operating plan that includes municipal, agricultural and other smaller uses while maintaining the local Basin in a sustainable condition (i.e., no long term depletion of groundwater or interrelated surface water). This has resulted in preparation of the following important studies funded by the purveyors to ensure sustainability of the local groundwater resources:

1. Slade (2002) updates prior reports and includes a detailed review of the hydrologic conditions and description of groundwater resources available to Valencia and other large municipal and agriculture groundwater producers, including SCWD, NCWD, The Newhall Land and Farming Company ("Newhall") and the Wayside Honor Ranch operating within the Santa Clara River Valley East Subbasin, one of several subbasins identified along the Santa Clara River in Los Angeles and Ventura counties by Updated Bulletin 118 of the California Department of Water Resources. The shallow aquifer system is designated the Alluvial aquifer and the deeper aquifer is designated the Saugus Formation. Slade reported that both aquifer systems were in good operating condition and not in an overdraft condition. Also included are hundreds of other small scale water producers that account for less than 1 percent of total production from these aquifer systems (SCVWR 2008).
2. In 2003, CLWA in cooperation with Valencia and the other retail water purveyors completed and adopted a Groundwater Management Plan in accordance with Water Code §10753. Among the elements of the adopted Plan is the preparation of annual groundwater management reports, such as the Santa Clarita Valley Water Report, that provides information about local groundwater conditions, SWP supplies, water conservation and recycled water. The Plan also contemplated preparing other technical reports to address specific aspects of basin management. Recently, technical reports have been prepared on the development and calibration of a numerical groundwater flow model, an analysis of perchlorate containment in groundwater and a groundwater yield study of the Upper Basin.
3. In August 2005, work was completed in support of a Memorandum of Understanding (MOU) entered into by the Valencia, CLWA and the other water purveyors and United Water Conservation District. The MOU is a commitment by the water purveyors to expand on the previous knowledge of groundwater conditions in the Upper Basin and, using a regional groundwater flow model, evaluate the long-term sustainability of the purveyor's groundwater operating plan under a range of existing and potential future hydrologic conditions. The primary conclusion of the modeling analysis is that the

groundwater operating plan will not cause detrimental short-term or long-term effects to the groundwater and surface water resources in the Santa Clarita Valley and, therefore, is sustainable (Basin Yield Study, 2005).

4. In August 2009, the Basin Yield Study 2005 was updated by Luhdorff and Scalmanini and GSI Solutions. The study essentially updated previous groundwater modeling work but included important additional analyses. The additional work included analyzing different groundwater operating scenarios and assessing the potential impact from several climate change scenarios. The updated study concluded that continuation of the region's current groundwater operating plan is sustainable; that the groundwater basin has not been and is not projected to be in overdraft; and that the water purveyors' groundwater operating can be relied upon for long term planning purposes (Basin Yield Study, 2009).

The following sub-parts respond to specific requirements of Water Code §10910(f):

3.2.1 Water Code §10910(f)(1). Review of relevant information contained in the urban water management plan.

The 2005 UWMP contains relevant information about groundwater resources available for the project in Chapter 3, Water Resources and Appendix C, Groundwater Resources and Yield. This includes a description of the local Alluvial and Saugus Formation aquifer systems, their respective yields as well as historical and projected production consistent with the purveyor's groundwater operating plan.

3.2.2 Water Code §10910(f) (2). Description of any groundwater basin or basins from which the proposed project will be supplied, including information concerning adjudication and overdraft.

Slade (2002) provides a detailed description of the Santa Clara River Valley East Sub-basin ("Basin") and the two aquifer systems, the Alluvial aquifer and the Saugus Formation. The Basin is about 22 miles long east to west and 13 miles wide. The Alluvial Aquifer has an estimated storage capacity of about 240,000 acre-feet (af) of water and approximately 1.65 million af of potentially usable groundwater is present from depths of 300 to 2,500 feet in the Saugus Formation (Slade 2002).

In 2003, CLWA with the cooperation of Valencia and the other retail water purveyors completed and adopted a Groundwater Management Plan in accordance with Water Code §10753. The management objectives of the Plan is to ensure the ongoing use of local groundwater by maintaining the Basin in good operating condition (no overdraft), protecting water quality and preventing adverse impacts to surface waters. The groundwater basin has not been adjudicated and has not been identified as overdrafted or projected to be overdrafted by the Department of Water Resources (DWR Bulletin 118, California's Groundwater, 2003, page 98).

The most current analysis and update of operational yield for both aquifers is included in the Basin Yield Study completed by CH2MHill/Scalmanini in 2005, as updated by Luhdorff and Scalmanini and GSI Solutions in 2009. The updated report analyzes the operational yield of both aquifers and other parameters of production capacity. The study concluded neither aquifer system is in overdraft and the purveyor's groundwater operating plan as described in the Groundwater Management Plan is sustainable (Basin Yield Study, 2009).

3.2.3 Water Code §10910(f)(3). Description and analysis of the amount and location of groundwater pumped by the public water system for the past 5 years from any groundwater basin from which the proposed project will be supplied.

During the past 5-year period, Valencia's production averaged 12,807 afy from the Alluvial aquifer and 2,307 afy from the Saugus Formation. See Table 2-1 in the SCVWR 2010 for a summary of the historical groundwater production for the past five years by the retail water purveyors.

Total pumpage from the Alluvial aquifer in 2009 was 39,986 af. Of the total Alluvial pumpage in 2009, 24,396 af was for municipal water supply, and the balance, 15,590 af, was for agriculture and other (minor) miscellaneous uses (SCVWR 2010). Since 1980, when imported water deliveries began from the SWP, total pumpage from the Alluvial aquifer has ranged from a low of about 20,200 afy (in 1983) to slightly more than 43,400 afy (in 1999) (SCVWR 2010).

Total pumpage from the Saugus Formation in 2009 was 7,678 af (SCVWR 2010). Of the total Saugus Formation pumpage in 2009, 6,704 af was for municipal water supply, and the balance 974 af was for agricultural and other (minor) uses (SCVWR 2010). Groundwater pumpage from the Saugus peaked in the early 1990s and then declined steadily. On a long-term average basis since the importation of SWP water, total pumpage from the Saugus Formation has ranged from a low of 3,716 afy (in 1999) to a high of 14,917 afy in (1991) (SCVWR 2010).

3.2.4 Water Code §10910(f)(4). Description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system from any basin from which the proposed project will be supplied.

See Table 3-8 in the 2005 UWMP for a summary of the range of groundwater production projected by Valencia and the other the retail water purveyors. To ensure sustainability, the purveyors have committed that the annual use of groundwater pumped collectively in any given year will not exceed the purveyors' operating plan as described in the Basin Yield Study (August 2009) and reported annually in the Santa Clarita Valley Water Report. The project's potable water demand of 1,676 afy will be supplied from groundwater produced from the Alluvial aquifer located in Los Angeles County.

3.2.5 Water Code §10910(f)(5). Analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.

As to the Newhall Ranch Specific Plan, the project applicant, Newhall, would meet most of the potable water demands of the Specific Plan by using Newhall's groundwater produced from the Alluvial aquifer in Los Angeles County, which is presently committed to agriculture. The amount of water available from this source totals approximately 7,038 afy. The project's potable water demand is estimated to be 1,676 afy. The water presently used to irrigate crops would be used to meet all of the potable water needs of the project resulting in no net increase in groundwater use.

As stated previously, the water purveyors have developed a groundwater operating plan to meet the requirements of municipal, agricultural and other smaller uses while maintaining the local Alluvial Aquifer and Saugus Formation in a sustainable condition (i.e., no long term depletion of groundwater or interrelated surface water). The groundwater operating plan is based on the concept that pumping can vary from year to year to allow increased groundwater use in dry year periods and increased recharge during wet periods and collectively assure that the groundwater Basin is adequately replenished through various wet/dry cycles. A description of the groundwater operating plan is found in the 2005 UWMP and the Basin Yield Study (August 2009). Based on these studies, the groundwater Basin is in good operating condition (not in a condition of overdraft). The purveyor's groundwater operating plan is a reliable long term component of water supply for the Santa Clarita Valley.

As stated in this WSA, an analysis and discussion regarding the discovery and impact of perchlorate contamination on the sufficiency of groundwater supplies is contained in the 2005 UWMP and most recent annual Santa Clarita Valley Water Report. The reliability analysis contained in the 2005 UWMP takes into account the impact of perchlorate on water supply operations while the planning, design and construction of treatment and other restoration activities are implemented.

3.2.6 Sustainability of Existing Groundwater Supplies and Projected Supplies

Groundwater supplies were reviewed in the 2005 UWMP and evaluated in the Basin Yield Study (August 2009) to determine whether supply projections were realistic over varying hydrologic conditions. The review made the following critical findings:

- (1) Both the Alluvial aquifer and the Saugus Formation are reasonable and sustainable sources at the yields represented in the 2005 UWMP over the next 25 years;
- (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 for purposes of planning in the context of the 2005 UWMP.

Additionally, the 2005 UWMP and Basin Yield Study (August 2009) concluded that both aquifers are in good operating condition (not in a condition of overdraft) and are not projected to become overdrafted.

3.3 Additional Project Water Supplies

3.3.1 Nickel Water

Newhall also maintains contractual rights to an additional source of water, referred to as "Nickel Water." The applicant has secured 1,607 afy of potable water under contract with the Nickel Family LLC in Kern County. This water is 100 percent reliable on a year-to-year basis, and not subject to the annual fluctuations that can occur in dry year conditions. The water would be delivered through the Kern County Water Agency and the SWP system. Nickel Water would only be needed on the Specific Plan site in years when all of the Newhall Ranch agricultural water has been used, which is estimated to occur after the 20th year of project construction. Consequently, this source of water would not be needed to serve the proposed project.

3.3.2 Semitropic Water Storage District Groundwater Banking Project

The project applicant has entered into an agreement to reserve and purchase water storage capacity of up to 55,000 acre-feet in the Semitropic Water Storage District Groundwater Banking Project. Sources of water that can be stored in this banking project include, but are not limited to, Nickel Water, CLWA SWP entitlement and other CLWA water supplies. As of December 31, 2009, Newhall has stored 18,828 af of water in this banking program that could be extracted when needed in amounts of up to 4,950 afy. This supply provides added reliability for the entire Newhall Ranch Specific Plan especially in dry years and only after the Newhall Ranch agricultural water is fully committed. Consequently, this source is not needed to serve the proposed project.

3.4 Recycled Water

Wastewater that has been highly treated and disinfected can be reused for landscape irrigation. In 1993, CLWA completed a *Reclaimed Water System Master Plan* to use recycled water as a reliable water source to meet a portion of the non-potable demand within Santa Clarita Valley. The Master Plan was updated in 2002 and again in 2007, and the amount of recycled water expected to be produced in the future is approximately 17,000 af per year in 2030 (2005 UWMP, CLWA Final Program EIR Recycled Water Master Plan, 2007). CLWA is currently under contract for 1,700 af per year that became available in 2003.

As the Newhall Ranch Specific Plan is developed, including the Mission Village project, two sources of recycled water would be available to the project from the Newhall WRP and the existing Valencia WRP. Water from the Newhall WRP and Valencia WRP would be used to meet the non-potable demands of the project. Areas on the site that would use recycled water to meet non-potable demands include common areas, slopes, school landscaped areas and parks. Wastewater generated by the project would be pumped to the Valencia WRP for treatment. Consequently, initial deliveries of recycled water to the project would be supplied from the Valencia WRP.

4.0 CONCLUSION

Based on the analysis set forth in this revised WSA and as supported by the documents relied on for its preparation, Valencia Water Company's total projected water supplies will meet the projected water demands associated with the Mission Village project in combination with existing and other planned uses within the Valencia's service area. This determination is consistent with the best available information, including the 2005 UWMP, DWR's 2009 Delivery Reliability Report, and the most recent annual Santa Clarita Valley Water Report (SCVWR 2010).