SB 610 WATER SUPPLY ASSESSMENT

Disney | ABC Studios at The Ranch

Original Completed: April 2010

Updated: April 2013

NCWD

NEWHALL COUNTY WATER DISTRICT

Prepared By:

Newhall County Water District
23780 N. Pine Street
Santa Clarita, California 91322-0970
(661) 259-3610

Table of Contents

1.0 INTRODUCTION 1

1.1 Background 1

1.2 Purpose 1

1.3 District's 2005 Urban Water Management Plan 2

1.4 District Policies, Required Regulatory Approvals and Permits 4

1.5 Information Relied Upon in Preparation of this WSA 4

2.0 EXISTING WATER RESOURCES 7

2.1 Imported Supplies 7

2.1.1 SWP Table A Amount 7

2.1.2 Existing Additional Water Sources 10

2.2 Groundwater 11

2.2.1 Water Code §10910(f)(1) 12

2.2.2 Water Code §10910(f)(2) 12

2.2.3 Water Code §10910(f)(3) 13

2.2.4 Water Code §10910(f)(4) 13

2.2.5 Water Code §10910(f)(5) 13

2.3 Recycled Water 15

3.0 PLANNED WATER RESOURCES 16

3.1 Transfers and Exchanges 16

3.2 Additional Banking Programs 16

3.3 Increased Dry-Year Saugus Formation Pumping 17

3.4 Additional Recycled Water 18

3.5 Water Conservation 18

4.0 WATER USE 20

4.1 Historical Water Use 20

4.2 Water Use of the Proposed Project 22

4.3 Future Water Use 22

5.0 NORMAL, SINGLE-DRY, AND MULTIPLE-DRY YEAR PLANNING 25

5.1 Summary of Existing and Planned Supplies 25

5.2 Normal Water Year 27

5.3 Single-Dry Year 30

5.4 Multiple-Dry Year 33

6.0 CONCLUSION 36

List of Tables

2-1 Wholesaler Identified and Quantified Existing and Planned Sources of Water Available to CLWA for Average/Normal Years (2010 UWMP)

2-1-A Wholesaler Identified and Quantified Existing and Planned Sources of Water Available to CLWA for Average/Normal Years (DWR Reliability Report, 2011)

2-2 Wholesale Supply Reliability (2010 UWMP)

2-2-A Wholesale Supply Reliability (DWR Reliability Report, 2011)

3-1 Future Reliability Enhancement Programs

4-1 Historical Water Use for NCWD

4-2 Historical Water Use for the Santa Clarita Valley Region

4-3 Water Use Estimate for the Proposed Project

4-4 Current and Projected Water Demands for NCWD

4-5 Regional Projected Water Demands

5-1 Summary of Existing and Planned Supplies

5-2 Projected Average/Normal Year Supplies and Demands

5-3 Projected Single-Dry Year Supplies and Demands

5-4 Projected Multiple-Dry Year Supplies and Demands

List of Figures

1-1 Disney/ABC Studios at The Ranch Site Map

1.0 INTRODUCTION

1.1 Background

Disney/ABC Studios at The Ranch (Proposed Project) would be located at 19802 Placerita Canyon Road in the unincorporated Santa Clarita Valley area of Los Angeles County. The Proposed Project would provide up to 555,950 square feet of development, including twelve soundstages, production offices, six mills, a warehouse, writers/producers bungalows, a commissary, an administration building, parking, a central utility plant, and an electrical substation within the proposed Development Area of approximately 58.5 acres on the westernmost portion of the 890-acre Golden Oak Ranch (Ranch). In addition, the Proposed Project would include an option to develop studio offices in lieu of four soundstages and two mills within the northern portion of the Development Area. The remainder of the Ranch would continue to be operated as a working filming ranch where motion picture and television filming, set construction and agricultural activities have occurred since before 1959. Figure 1-1 shows the approximate location of the Proposed Project.

Newhall County Water District (NCWD) has been identified as the retail water purveyor for the Proposed Project. NCWD distributes a combination of imported water from the Castaic Lake Water Agency (CLWA) and groundwater from local wells. NCWD is one of four water purveyors in the Santa Clarita Valley and currently supplies a population of approximately 44,000 with over 9,500 service connections.

Legislation places additional requirements upon NCWD as the water purveyor for the Proposed Project. Senate Bill 610 (Costa) added Water Code sections 10910-10915 effective January 1, 2002, regarding land use and planning as well as water supply availability.

Once it is determined a project is subject to the California Environmental Quality Act, and that the project meets specified thresholds, SB 610 requires cities and counties to identify any public water system that may supply water for the project and to request that public water systems prepare a specified water supply assessment to be included in any environmental document prepared for the project. The assessment includes, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts. A SB 610 Water Supply Assessment (WSA) was originally completed for the Proposed Project in April of 2010. This document is an update to the previous WSA.

1.2 Purpose

The purpose of this Water Supply Assessment (WSA) is to comply with the requirements of SB 610 with respect to the water demands of the Proposed Project and answer the basic question:

Will the water supplier's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection meet the projected water demand of the Proposed Project, in addition to the water supplier's existing and planned future uses, including agricultural and manufacturing uses?

1.3 District's 2010 Urban Water Management Plan

SB 610 provides that if the projected water demand associated with the Proposed Project was accounted for in the urban water management plan (UWMP) adopted by the retail water purveyor, then relevant information from that document may be incorporated into the SB 610 WSA. The 2010 UWMP (2010 UWMP) was adopted by NCWD on June 22, 2011, and appropriately filed with the California Department of Water Resources (DWR). The 2010 UWMP was a regional planning effort by NCWD, CLWA, and the other Santa Clarita Valley water purveyors that built upon previous documents, specifically the 2005 UWMP. The 2010 UWMP includes the following eight major sections:

1. Introduction
2. Water Use
3. Water Resources
4. Recycled Water
5. Water Quality
6. Reliability Planning
7. Water Demand Management Measures
8. Water Shortage Contingency Planning

Figure 1-1

BLDG. NO.	USE
1-8	SOUNDSTAGES
13	WAREHOUSE
14	CENTRAL UTILITY PLANT AND ASSOCIATED EXTERIOR EQUIPMENT
15	ADMINISTRATION
17, 26	BUNGALOWS
18, 19, 22, 27	PRODUCTION OFFICES
20, 21, 23, 24	MILLS
25	COMMISSARY
28	STUDIO OFFICE
29	ELECTRICAL SUBSTATION

Figure 1-1

The timing of the Proposed Project places it within the timeframe for calculating "planned future uses" within the 2050 water supply projection included in the 2010 UWMP. The 2010 UWMP projects an annual growth rate in water demand of approximately 1.5 percent over a 40-year period for the Santa Clarita Valley. The 2010 UWMP anticipated increases in the number of commercial accounts and demand in acre-feet through 2050. The Proposed Project would be classified as a commercial project and would fall within the demand anticipated for commercial projects within NCWD's service area through 2050 (see Table 2-4 in the 2010 UWMP).

In June, 2012, DWR provided the most recent analysis of delivery reliability estimates to the SWP contractors (DWR Reliability Report, 2011). In NCWD's judgment, the 2010 UWMP updated with the recent reliability report provides the best available information regarding water supply and demand projections. The estimated projected deliveries have been updated to reflect the reliability estimates (Reference Tables 2-1-A and 2-2-A of this WSA).

1.4 NCWD Policies, Regulatory Approvals and Permits

NCWD Policies

The Proposed Project will be subject to all NCWD policies, rules and regulations that govern development and connection to the NCWD water system. It will be the responsibility of the Proposed Project applicant to make appropriate financial and contractual arrangements with NCWD to assure the necessary improvements are made to the water supply infrastructure. Following the receipt of the appropriate application, arrangements can be made for the installation of water facilities required to meet the needs of the Proposed Project.

Regulatory Approvals and Permits

The State of California Department of Public Health and the County of Los Angeles will issue permits and regulatory approvals for constructing the necessary improvements to supply and deliver water to the Proposed Project.

1.5 Information Relied Upon in Preparation of this WSA

The following list identifies the documentation that has been relied upon in the preparation of this WSA. Copies of the referenced documents are available for review at NCWD by contacting Eunie Kang, (661) 259-3610, and can be obtained upon the payment of the costs of reproduction. These documents are part of NCWD's record of proceedings for the preparation of this WSA:

1. *2005 Urban Water Management Plan*, prepared for Castaic Lake Water Agency, CLWA's Santa Clarita 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)
2. *2010 Urban Water Management Plan*, prepared for Castaic Lake Water Agency, CLWA's Santa Clarita Division, Newhall County Water District, Valencia Water Company, Los Angeles County Waterworks District No. 36, prepared by Nancy Clemm, Kennedy Jenks Consultants, Luhdorff & Scalmanini, Stacy Miller Public Affairs, June 2011. (2010 UWMP)
3. *Analysis of Groundwater Supplies and 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 CH2MHill in cooperation Luhdorff & Scalmanini, August 2005. (Basin Yield Study, 2005)

4. *Analysis of Groundwater Supplies and 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 CH2MHill, GSI Water Solutions, and Luhdorff & Scalmanini, August 2009. (Basin Yield Study, 2009)

5. *Interim Remedial Action Plan, prepared for CLWA by Kennedy/Jenks Consultants, December 2005.*

6. *Santa Clarita Valley Water Report 2011*, prepared for CLWA, Los Angeles County Waterworks District No. 36, Newhall County Water District, and Valencia Water Company by Luhdorff and Scalmanini, Consulting Engineers, June 2012. (SCVWR, 2011)

7. *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)

8. *Revised Draft Additional Analysis to the Newhall Ranch Specific Plan and Water Reclamation Plant Final Environmental Impact Report,* prepared for Los Angeles County Department of Regional Planning, November 2002. (Newhall Ranch, 2002)

9. CLWA Capital Improvement Program prepared by Kennedy/Jenks Consultants, 2003.

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

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

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

13. *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 CH2MHill, April 2004.

14. *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 CH2MHill, December 2004.

15. *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 CH2MHill, December 21, 2004.

16. *Mitigated Negative Declaration – Groundwater Containment, Treatment and Restoration Project*, CLWA, August 2005.

17. 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. 18, 1999, the transfer of 41,000 acre-feet of entitlement from Kern County Water Agency to CLWA).

18. 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.

19. 2002 *Draft Recycled Water Master Plan* prepared for CLWA by Kennedy/Jenks Consultants.

20. *Final Program Environmental Impact Report – Recycled Water Master Plan*, prepared for CLWA by Bon Terra Consulting, March 2007.

21. 2003 Semitropic Groundwater Storage Program prepared for CLWA by Kennedy/Jenks Consultants.

22. *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.

23. *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.

24. *Final Environmental Impact Report – Castaic Lake Water Agency Water Acquisition from the Buena Vista Water Storage District and Rosedale-Rio Bravo Water Storage District (RRBWSD) Water Banking and Recovery Program,* prepared for CLWA by Science Applications International Corporation, October 2006.

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

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

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

28. *California Department of Water Resources*, *The State Water Project Delivery Reliability Report 2009*, August 2010. (DWR Reliability Report Draft, 2009)

29. *California Department of Water Resources*, *The State Water Project Delivery Reliability Report 2011*, June 2012. (DWR Reliability Report Draft, 2011)

30. *California Department of Water Resources*, *Draft Environmental Impact Report, Monterey Amendment to the State Water Project Contracts (Including Kern Water Bank Transfer) and Associated Actions as Part of a Settlement Agreement* October 2007. (Monterey Plus, 2007)

31. *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.* Los Angeles County, March 2003. (Newhall Ranch, 2003)

32. *Santa Clarita Valley Water Use Efficiency Strategic Plan*, prepared for Santa Clarita Valley Family of Water Suppliers (CLWA, CLWA Santa Clarita Water Division, Los Angeles County Waterworks District No. 36, Newhall County Water District and Valencia Water Company) by A & N Technical Services, Inc, September 2008. (WUESP, 2008)

2.0 EXISTING WATER RESOURCES

The first substantive requirement of the SB 610 WSA is the identification and description of the existing water supply sources in the public water system that will serve the Proposed Project. Water Code §10910(d) requires the WSA to include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the Proposed Project, and a description of the quantities of water received in prior years by the public water system.

The current water supply for the Santa Clarita Valley is derived from three primary sources:

1. Imported State Water Project (SWP) Water and Additional Reliability Supplies
2. Groundwater from the Alluvial Aquifer
3. Groundwater from the Saugus Formation

In addition, recycled water is now available through CLWA, which frees up SWP and groundwater for other uses.

These sources of water supply can be characterized as 1) *imported supplies*, transported via the SWP and consisting of SWP Table A Amounts and additional reliability supplies; and 2) *local supplies*, consisting of groundwater and recycled water. All of these sources are necessary to meet the regional demands identified in the 2010 UWMP.

The following information is taken from the 2010 UWMP except as noted.

2.1 Imported Supplies

2.1.1 SWP Table A Amount

Since 1980, local supplies in the Santa Clarita Valley have been supplemented with imported water from the SWP. Imported water obtained from the SWP through CLWA is the largest source of water for municipal use in the Santa Clarita Valley. The SWP contractual Table A Amount, depending on annual allocation, currently meets around half of local demand. “Table A Amount” refers to the maximum amount of water a SWP contractor may request each year from the SWP. Table A is used in determining each contractor’s proportionate share, or allocation, of the total SWP water supply DWR determines to be available each year. The reliability of SWP supplies is subject to both annual hydrology and planned improvements to the system. The Table A Amount is not equivalent to actual deliveries of water in any given year.

The following information responds to specific requirements of Water Code §10910(d) regarding the identification of existing water supply entitlements, water rights and water service contracts relevant to the identified water supply for the Proposed Project:

Wholesaler’s entitlements to its supplies: CLWA has an annual Table A contract amount from the State Water Project in the amount of 95,200 acre-feet (af). This Table A Amount is a maximum and does not reflect the actual amount of water available to CLWA from the State Water Project, which varies from year to year. In an effort to assess the impact of these varying conditions on SWP supply reliability, the Department of Water Resources (DWR) issued its “2009 State Water Project Delivery Reliability Report” in October, 2010 (DWR Reliability Report, 2009). The report assists SWP contractors in assessing the reliability of the SWP component of their overall supplies. In June, 2012, DWR provided updated delivery reliability estimates to the SWP contractors (DWR Reliability Report, 2011). This updated analysis indicates that the SWP,

using existing facilities operated under current regulatory and operational constraints, and with all contractors requesting delivery of their full Table A Amounts in most years, could deliver 60 percent of total Table A Amounts on a long-term average basis. This analysis also projects that SWP deliveries during multiple-year dry periods could average about 34 to 35 percent of total Table A Amounts and could possibly be as low as 11 percent during an unusually dry single year. During multiple wet years, 82 percent of full Table A Amounts is projected to be available, and during a single wet year 98% of Table A Amounts could be available. The 2010 UWMP used DWR's 2009 Delivery Reliability Report to calculate projected deliveries to CLWA during normal, single dry, and multiple dry years. The estimated projected deliveries from the 2010 UWMP and DWR's 2009 Delivery Reliability estimates are shown below in reference Tables 2-1 and 2-2.

On June 25, 2012 the California Department of Water Resources (DWR) issued its "State Water Project Delivery Reliability Report 2011" (DWR Reliability Report Final, 2012), an assessment of the SWP supply availability and reliability. The estimated projected deliveries have been updated to reflect the DWR December, 2011 updated reliability estimates (Reference Tables 2-1-A and 2-2-A below).

Table 2-1
Wholesaler-Identified and -Quantified Existing and Planned Sources of Water Available to CLWA for Average/Normal Years (2010 UWMP) [(1)]

Wholesaler (Supply Source)	2015	2020	2025	2030
DWR (SWP)				
Table A Supply (af)	58,100	57,900	57,600	57,400
% of Table A Amount	61%	61%	61%	60%

Notes:
[(1)] The percentages of Table A Amount projected to be available are taken from the analyses presented in DWR's "2009 SWP Delivery Reliability Report." (DWR Reliability Report, 2009). Supplies are calculated by multiplying CLWA's Table A Amount of 95,200 af by these percentages.

Table 2-1-A
Wholesaler-Identified and -Quantified Existing and Planned Sources of Water Available to CLWA for Average/Normal Years (State Water Project Delivery Reliability Report, 2011) [(1)]

Wholesaler (Supply Source)	2015	2020	2025	2031
DWR (SWP)				
Table A Supply (af)	57,120	57,120	57,120	57,120
% of Table A Amount	60%	60%	60%	60%

Notes:
[(1)] The percentages of Table A Amount projected to be available are taken from Table 7-1of DWR's "The State Water Project Delivery Reliability Report 2011" (DWR Reliability Report, 2011). Supplies are calculated by multiplying CLWA's Table A Amount of 95,200 af by 60 percent.

Table 2-2
Wholesale Supply Reliability (2010 UWMP)[1]

Wholesaler	Single Dry Year [2]	Multiple Dry Years [3]
DWR (SWP Supply)		
2010		
Table A Supply (af)	12,800	32,800
% of Table A Amount	13%	34%
2030-2050		
Table A Supply (af)	9,100	33,000
% of Table A Amount	10%	35%

Notes:

(1) The percentages of Table A Amount projected to be available are taken from Table 6-1 of DWR's "State Water Project Delivery Reliability 2009 Report" (DWR Reliability Report, 2009). Supplies are calculated by multiplying CLWA's Table A Amount of 95,200 af by these percentages.

(2) Based on the worst case historic single dry year of 1977.

(3) Supplies shown are annual averages over four consecutive dry years, based on the worst case historic four-year dry period of 1931-1934.

Table 2-2-A
Wholesale Supply Reliability (DWR Reliability Report 2011)[1]

Wholesaler	Single Dry Year [2]	Multiple Dry Years [3]
DWR (SWP Supply)		
2015		
Table A Supply (af)	8,568	33,320
% of Table A Amount	9%	35%
2031		
Table A Supply (af)	10,472	32,368
% of Table A Amount	11%	34%

Notes:

(1) The percentages of Table A Amount projected to be available are taken from Tables 6-3 and 7-2 of DWR's "State Water Project Delivery Reliability Report 2011" (DWR Reliability Report, 2011). Supplies are calculated by multiplying CLWA's Table A Amount of 95,200 af by the conservative percentages.

(2) Based on the worst case historic single dry year of 1977.

(3) Supplies shown are annual averages over four consecutive dry years, based on the worst case historic four-year dry period of 1931-1934.

2.1.2 Existing Additional Water Sources

The following existing additional water sources are available to meet demands when necessary.

- **Buena Vista/Rosedale-Rio Bravo Water Storage District Water Acquisition:** In early 2007, CLWA finalized a Water Acquisition Agreement with the Buena Vista Water Storage District (Buena Vista) and the Rosedale-Rio Bravo Water Storage District (Rosedale-Rio Bravo) in Kern County. Under this Program, Buena Vista's high flow Kern River entitlements (and other acquired waters that may become available) are captured and recharged within Rosedale-Rio Bravo's service area on an ongoing basis. CLWA will receive 11,000 af of these supplies annually through either exchange of Buena Vista's and Rosedale-Rio Bravo's SWP supplies or through direct delivery of water to the California Aqueduct via the Cross Valley Canal.

- **Nickel Water:** The Newhall Ranch Specific Plan and Water Reclamation Plant Revised Draft Additional Analysis, November 2002 describes an additional source of water that has been acquired by the Newhall Ranch Specific Plan applicant for use. The Newhall Ranch Specific Plan applicant has secured 1,607 af of water under contract with 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 to the SWP in dry year conditions (Newhall Ranch, 2002). Although this water is not available to the Proposed Project, it adds to the ability to meet total demands, including those of the Proposed Project.

- **Flexible Storage Accounts:** The 2010 UWMP describes that as a part of its Water Supply Contract with DWR, CLWA has access to a portion of the storage capacity of Castaic Lake. This Flexible Storage Account allows CLWA to borrow up to 4,684 af of the storage in Castaic Lake. Any amount that CLWA borrows must be replaced by CLWA within five years of its withdrawal. CLWA manages this storage by keeping the account full in normal and wet years and then delivering that stored amount (or portion of it) during dry periods. The account is refilled during the next year that adequate SWP supplies are available to CLWA to do so. CLWA has negotiated with Ventura County water agencies to obtain the use of their Flexible Storage Account. This will allow CLWA access to another 1,376 af of storage in Castaic Lake. CLWA access to this additional storage is available on a year-to-year basis through 2015.

- **Semitropic Water Storage District Banking:** The 2010 UWMP (pgs. 6-4, 6-5) identifies two existing contracts with the Semitropic Water Storage District under which CLWA has stored 45,920 acre-feet of water. In accordance with the terms of CLWA's storage agreements with Semitropic, 90 percent of the banked amount, or a total of 41,328 af, is recoverable through 2023 to meet CLWA water demands when needed. Withdrawals of up to 41,328 afy 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 for the tables in Section 5.0 that about one third of the total amount stored could be withdrawn.

- **Rosedale-Rio Bravo Water Storage District Water Banking:** The 2010 UWMP (pg. 6-5) identifies one existing contract with the Rosedale-Rio Bravo Water Storage District (RRBWSD) under which CLWA has stored 100,000 af of water as of March, 2013. This banking program currently offers storage and pump-back capacity of 20,000 afy, with up to 100,000 af of storage capacity. This stored water will be called upon to meet demands when required and is recoverable through 2035.

- **Rosedale-Rio Bravo Water Storage District Water Banking 2-for-1 Program:** CLWA executed a water 2-for-1 exchange program with RRBWSD in 2011, where CLWA can recover one acre-foot of water for each two acre-feet delivered (less losses). In 2011, CLWA delivered 15,602 af to the program, delivered another 3,584 af in 2012 and, after program losses, has 9,500 af of recoverable water. This program is currently at capacity.

- **West Kern Water District 2-for-1 Program:** CLWA also has a two-for-one exchange program with the West Kern Water District in Kern County and delivered 5,000 af in 2011, resulting in a recoverable total of 2,500 af.

- **Newhall Land – Semitropic Water Storage District Banking:** The Newhall Ranch Specific Plan project applicant has entered into an agreement to reserve and purchase water storage capacity of up to 55,000 af in the Semitropic Water Storage District Groundwater Banking Project (Newhall Ranch, 2003). Sources of water that could be stored include, but are not limited to, the Nickel Water. The stored water can be extracted in dry years in amounts up to 4,950 afy. Presently, there is 18,892 af of water stored in the Semitropic Groundwater Storage Bank by The Newhall Land and Farming Company for the Newhall Ranch Specific Plan. Newhall Ranch is located within the CLWA service area. Delivery of stored water from the Newhall Land Semitropic Groundwater Bank requires further agreements between CLWA and Newhall Land. Although this water is not available to the Project, it adds to the ability to meet total demands, including those of the Project.

2.2 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). In 2003, CLWA in cooperation with the 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 following important studies have been prepared that serve to substantiate and ensure the 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 NCWD and other large municipal and agriculture groundwater producers, including SCWD, Valencia, The Newhall Land and Farming Company 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 a condition of overdraft. 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, 2005).

2. In August 2005 and again in 2009, work was completed in support of a Memorandum of Understanding (MOU) entered into by NCWD, CLWA and the other water purveyors and

United Water Conservation District (MOU, 2001). The MOU is a commitment by the water purveyors to expand on the previous knowledge of groundwater conditions 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 is, therefore, sustainable (Basin Yield Study, 2005). The primary conclusion was again confirmed with the completion of an updated basin yield analysis in 2009 (Basin Yield Study, 2009).

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

2.2.1 Water Code §10910(f)(1)

Review of relevant information contained in the Urban Water Management Plan.

Refer to Chapter 3, Water Resources and Appendix C, Groundwater Resources and Yield in the Santa Clarita Valley 2010 UWMP for an overview description of the local Alluvial and Saugus Formation aquifer systems, as well as historical and projected production consistent with the groundwater operating plan.

2.2.2 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.

The 2010 UWMP describes that the sole source of local groundwater for urban water supply in the Santa Clarita Valley is the groundwater Basin identified in the DWR Bulletin 118, 2003 Update as the Santa Clara River Valley Groundwater Basin, East Subbasin (Basin) (Basin No. 4-4.07). The Basin is comprised of two aquifer systems, the Alluvium and the Saugus Formation. The Alluvium generally underlies the Santa Clara River and its several tributaries, and the Saugus Formation underlies practically the entire Upper Santa Clara River area. There are also some scattered outcrops of Terrace deposits in the Basin that likely contain limited amounts of groundwater. Since these deposits are located in limited areas situated at elevations above the regional water table and are also of limited thickness, they are of no practical significance as aquifers and consequently have not been developed for any significant water supply.

Neither aquifer system is in overdraft at the present time (Slade, 2002) (SCVWR, 2011) (Basin Yield Study, 2009). In 2003, CLWA with the cooperation of the retail water purveyors completed and adopted a Groundwater Management Plan in accordance with Water Code §10753. The management objectives of the Plan are 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 in the most current Bulletin that characterizes the ground water Basin (DWR Bulletin 118-80, 1980).

2.2.3 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 (2007 to 2011), NCWD's production was approximately 2,184 af from the Alluvial Aquifer and approximately 3,982 af from the Saugus Formation. A summary of the past 32 years of total groundwater production from the Alluvial Aquifer and Saugus Formation is set forth in Section 4.0 of this WSA.

Total pumpage from the Alluvial Aquifer in 2011 was approximately 40,748 af, a decrease of about 411 af from the preceding year (SCVWR, 2011). Of the total Alluvial pumpage in 2011, 27,919 af was for municipal water supply, and the balance, about 14,600 af was for agriculture and other (minor) miscellaneous uses (SCVWR, 2011).

Over the last three decades, since the inception of SWP deliveries in 1980, total pumpage from the Alluvial Aquifer has ranged from a low of about 20,200 af (in 1983) to slightly more than 43,400 af (in 1999) (SCVWR, 2011).

Total pumpage from the Saugus Formation in 2011 was 8,273 af, which is approximately 180 af more than pumped in the prior year (SCVWR, 2011). Of the total Saugus Formation pumpage in 2011, most (about 7,400 af) was for municipal water supply, and the balance (900 af) was for agricultural and other (minor) uses (SCVWR, 2011). Saugus pumpage has remained stable, at an average of about 7,729 afy, since 2007 (SCVWR, 2011). 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 14,917 afy in (1991); average pumpage from 1980 to 2011 has been slightly less than 6,900 afy (SCVWR, 2011). These numbers are at the lower end of the estimated range of the operational yield of the Saugus Formation (2010 UWMP).

2.2.4 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 3-7 in the 2010 UWMP for a summary of groundwater production projected by 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 (Basin Yield Study, 2009) and reported annually in the Santa Clarita Valley Water Report.

2.2.5 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.

NCWD has determined that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the Proposed Project was addressed in the 2010

UWMP. Therefore, as provided in Water Code §10910(f)(5), NCWD incorporates the following 2010 UWMP's conclusions regarding the adequacy of the groundwater supply.

For municipal water supply, with existing wells and pumps, the three retail water purveyors with Alluvial wells (NCWD, SCWD, and VWC) have a combined pumping capacity from active wells (not contaminated by perchlorate) of 42,000 gallons per minute (gpm), which translates into a current full-time Alluvial source capacity of approximately 67,000 afy. This is more than sufficient to meet the municipal, or urban, component of groundwater supply from the Alluvium, which is currently 24,000 to 26,000 afy of the total planned Alluvial pumping of 30,000 to 40,000 afy. (The balance of Alluvial pumping in the operating plan is for agricultural and other, including small private, pumping.)

For municipal water supply with existing wells, the three retail water purveyors with Saugus wells (NCWD, SCWD and VWC) have a combined pumping capacity from active wells of nearly 17,000 gpm, which translates into a full-time Saugus source capacity of about 27,000 AFY. These capacities include two Saugus wells contaminated by perchlorate (Saugus 1 and 2), which have now been returned to service with treatment facilities for use of the treated water for municipal supply under permit from the State Department of Public Health. They also reflect the most recent replacement well, VWC's Well 207, in a non-impacted part of the basin. Excluded from these capacities is VWC Well 201 that was recently impacted by the detection of perchlorate. The well represents a total of 2,400 gpm of pumping capacity (for a dry-year production capacity of 3,777 AFY). VWC has removed Well 201 from service.

In terms of adequacy and availability, the combined active Saugus groundwater source capacity of municipal wells of 27,000 AFY is more than sufficient to meet the planned use of Saugus groundwater in normal years of 7,500 to 15,000 AFY. This currently active capacity is more than sufficient to meet water demands, in combination with other sources. In order to supplement near term dry-year supplies, VWC Well 201 could be brought back into service within two years utilizing treatment technologies currently being used in the Santa Clarita Valley. In order to accommodate longer-term dry-year needs, additional Saugus wells are planned by 2020 and expected to have a combined capacity of 10,000 AFY.

Groundwater produced by NCWD consistently meets drinking water standards set by EPA and the California Department of Health Services. However the 2010 UWMP goes on to explain that ammonium perchlorate (perchlorate) has been a concern with respect to the groundwater quality since it was detected in four wells in the eastern part of the Saugus formation in 1997 and later in two wells in the Alluvial formation. In August 2010, perchlorate was detected in VWC's Saugus Well 201. VWC removed Well 201 from service when perchlorate was first detected and is currently evaluating remediation alternatives including wellhead treatment in order to return the well to service and restore impacted well capacity.

Of the seven wells that were removed from active water supply service upon the detection of perchlorate, two wells remain out of service. NCWD, CLWA and the other purveyors have developed an implementation plan that would restore this well capacity. The implementation plan includes a combination of treatment facilities and replacement wells. Treatment facilities for two of the impacted wells were constructed and both wells were returned to service in January 2011. A third well, SCWD's Stadium Well was sealed and its capacity was replaced by a new well. Additional production restoration (replacement) wells to recover the total lost capacity of the impacted wells are currently in the planning stages.

Groundwater is also tested for two types of organic compounds, volatile organic compounds (VOCs) and non-volatile synthetic organic compounds (SOCs). These organic compounds are

synthetic chemicals produced from industrial and agricultural uses. Tetrachloroethylene (PCE) and trichloroethylene (TCE) are found in trace levels below the Maximum Contaminant Level (MCL) in various drinking water wells (including, but not limited to Valencia Water Company well 205) in the Santa Clarita Valley. In addition, analyses of water taken from monitoring wells have shown organic compounds (including PCE and TCE) at levels above MCLs. Local drinking water wells are tested at least annually for VOCs and periodically for SOCs.

In light of the preceding, and taking into account the ongoing evolving process of investigating and treating impacted groundwater in the Santa Clarita Valley with regard to the adequacy of groundwater as the local component of water supply in this WSA, the non-impacted groundwater supply will be sufficient to meet near-term water requirements as described above. Afterwards, once treatment facilities and/or additional replacement wells are installed, the total groundwater capacity will be sufficient to meet the full range of normal and dry-year conditions as provided in the operating plan for groundwater supply.

2.3 Recycled Water

CLWA currently has a contract with the Los Angeles County Sanitation District for 1,700 afy of recycled water that became available in 2003 (Reference Table 4-2 in Section 4.0 of this WSA for historical recycled water deliveries). Currently, NCWD does not have any infrastructure in place to utilize recycled water. However, NCWD does indirectly benefit because any recycled water use will allow for an offset of potable water supplies (including groundwater and SWP water) to be used in other areas of the Santa Clarita Valley, including the Proposed Project.

3.0 PLANNED WATER RESOURCES

This WSA includes additional information related to obtaining planned additional water supplies. Potential future water sources discussed in the 2010 UWMP include acquisition of additional imported water supplies, recycled water, desalination, storm water runoff, increased dry year Saugus pumping, and additional SWP reliability projects. Demand side management programs (conservation) are also considered an important component of water supply resulting from efforts by NCWD, CLWA and the other retailers to reduce water demands on a long term basis.

The 2010 UWMP specifically identifies the following future sources of supply consisting of water transfers, additional groundwater banking programs, increased dry year Saugus pumping and additional recycled water as necessary to meet the total projected demands through 2050.

3.1 Transfers and Exchanges

As indicated in the 2010 UWMP, CLWA, as a SWP contractor, could acquire new imported water supplies on behalf of NCWD through direct transfers or by contributing to the construction of new desalination facilities in other areas in exchange for imported water. One of the most important aspects of any resource planning process is flexibility. A flexible strategy minimizes unnecessary or redundant investments (or stranded costs). The voluntary transfer of water between willing sellers and buyers can be an effective means of achieving flexibility. However, not all water transfers have the same effectiveness in meeting resource needs. Through the resource planning process and ultimate implementation, several different types of water transfers could be undertaken. The most viable types of water transfers are core and option transfers and, as such, represent CLWA's long-term strategy. The most recent costs for this type of transfer is estimated to be about $300 per AFY (equivalent to $5,500 per AF for Table A Amount) for core transfers (2010 UWMP).

3.2 Additional Banking Programs

Semitropic Water Storage District (Semitropic) provides SWP water to farmers for irrigation. Semitropic is located in the San Joaquin Valley in the northern part of Kern County immediately east of the California Aqueduct. Using its available groundwater storage capacity (approximately one MAF), Semitropic has developed a groundwater banking program, that takes available SWP supplies in wet years and returns the water in dry years. As part of this dry-year return, Semitropic can leave its SWP water in the Aqueduct for delivery to a banking partner and increase its groundwater production for its farmers. In 2002, CLWA entered into a temporary storage agreement with Semitropic, and stored an available portion of its Table A supply (24,000 AF) in an account in Semitropic's program. In 2004, 32,522 AF of available 2003 Table A supply was stored in a second temporary Semitropic account. In accordance with the terms of CLWA's storage agreements with Semitropic, 90 percent of the banked amount, or a total of 41,328 AF, was recoverable through 2023 to meet CLWA water demands when needed. Each account had a term of ten years for the water to be withdrawn and delivered to CLWA. Of this recoverable storage, 4,950 AF has been withdrawn, with 1,650 AF delivered in 2009 and 3,300 AF delivered in 2010, leaving a balance of 45,920 AF in storage available to meet future CLWA needs. CLWA executed an amendment for a ten-year extension of each banking agreement with Semitropic in April 2010. A negative declaration for the program extension was approved by CLWA's Board of Directors on January 19, 2011 and by the Semitropic Board of Directors on April 6, 2011.

Also located in Kern County, immediately adjacent to the Kern Water Bank, Rosedale-Rio Bravo Water Storage District (RRBWSD) has completed environmental documentation for a Water Banking and Exchange Program which includes storage and pumpback capacity of 20,000 afy, with up to 100,000 af of storage capacity. The agreement for this program has been executed and is now in effect. Currently, CLWA has since reached the program's maximum storage capacity, with 100,000 AF currently available for withdrawal.

In 2011 CLWA executed two, 2-for-1 water exchange programs. One with RRBWSD, where CLWA can recover one acre-foot of water for each two acre-feet delivered (less losses). Currently, CLWA has reached the programs storage capacity and after program losses, has 9,500 af of recoverable water. The second 2-for-1 exchange program is with the West Kern Water District in Kern County. A total of 5,000 af was delivered in 2011, resulting in a recoverable total of 2,500 af.

The 2010 UWMP discusses water banking storage and pumpback capacity both north and south of the Tehachapi Mountains, the latter of which would provide an emergency supply in case of catastrophic outage along the California Aqueduct. With short-term storage now existing in the Semitropic program and long-term storage now existing with Rosedale-Rio Bravo, CLWA has shifted attention to identification of programs south of the Tehachapis.

Groundwater banking and conjunctive-use programs enhance the reliability of both the existing and future supplies. Table 3-1 summarizes CLWA's future reliability enhancement programs.

Table 3-1
Future Reliability Enhancement Programs

Project Name	Year Available	Proposed Quantities (af)		
		Average/ Normal Year	Single Dry Year (1)	Multiple Dry Years (2)
Additional Planned Banking Programs	2025	0	10,000	7,500
	2035	0	20,000	15,000

(1) Supplies shown are maximum annual withdrawal capacity

(2) Supplies shown are average withdrawals during four consecutive dry years

3.3 Increased Dry-year Saugus Formation Pumping

The 2010 UWMP concludes (pg. 3-20) that pumping from the Saugus Formation in a given year is tied directly to the availability of other water supplies, particularly from the SWP. During average-year conditions within the SWP system, Saugus pumping ranges between 7,500 and 15,000 afy. Planned dry-year pumping from the Saugus Formation 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. Such 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.

As mentioned in Section 2.2.5 of this WSA, the three retail water purveyors with Saugus wells (NCWD, SCWD, and VWC) have a combined pumping capacity from active wells (not contaminated by perchlorate) of 17,000 gpm, which translates into a full-time Saugus source capacity of about 27,000 AFY. These capacities include two Saugus wells contaminated by

perchlorate (Saugus 1 and 2), which have now been returned to service with treatment facilities for use of the treated water for municipal supply under permit from the State Department of Public Health. They also reflect the most recent replacement well, VWC's Well 207, in a non-impacted part of the basin. Excluded from these capacities is VWC Well 201 that was recently impacted by the detection of perchlorate. The well represents a total of 2,400 gpm of pumping capacity (for a dry-year production capacity of 3,777 AFY). VWC has removed Well 201 from service.

3.4 Additional Recycled Water

Wastewater that has been highly treated and disinfected can be reused for landscape irrigation and other non-potable purposes. It is not suitable for use as potable water. In 1993, CLWA completed a *Reclaimed Water System Master Plan* to use recycled water as a reliable water source to meet some non-potable demand within the Santa Clarita Valley. In March, 2007 CLWA certified a Program Environmental Impact Report (PEIR) for the Recycled Water System Master Plan (Master Plan). The Master Plan is a proposed expansion of the existing recycled water system that would ultimately allow for the use of up to 17,400 afy of recycled water within the CLWA service area with full build out in the year 2050. The Master Plan includes facilities that would deliver recycled water to the NCWD service area and the delivery of the recycled water to the remainder of the CLWA service area would free up additional potable supplies for the NCWD. In addition to the CLWA Master Plan, the Newhall Ranch Specific Plan and Water Reclamation Plant Revised Draft Additional Analysis, November 2002, includes an additional 5,400 afy of water that will be delivered to that development once fully constructed (Newhall Ranch, 2002). Table 4-2 in Section 4.0 of this WSA may be referenced for historical recycled water deliveries.

3.5 Water Conservation

One of the assumptions in the 2010 UWMP is that potable water demand would be reduced by both existing and future users by no less than ten percent. Therefore, it is critical, if the Proposed Project is to avoid significant cumulative impacts to water supply, that it incorporates water conservation measures into the design the Proposed Project. The Proposed Project should include implementation of water conservation measures to reduce the overall demand to NCWD. In general, landscape irrigation can account for up to 70 percent of the water consumed at local residences. In order to reduce the water demand for the Proposed Project, specific measures should be included such as the use of xeriscaping and drought tolerant/native plantings. In addition, weather-sensitive irrigation timers should be installed to ensure all landscaping receives only the specific amount of water that it needs. Finally, the Proposed Project would need to comply with the County's recently-enacted Drought Tolerant Landscaping Ordinance, which requires use of landscaping which uses decreased amounts of irrigation.

Specifically, the Proposed Project may include the following water conservation features as part of its design: high-efficiency toilets (maximum 1.28 gallons per flush), including dual-flush water closets; high-efficiency urinals (maximum 0.125 gallon per flush) or waterless urinals; low-flow restroom faucets with a maximum flow rate of 0.5 gpm; and restroom faucets of a self-closing design (i.e., that automatically turn off when not in use). Use of these fixtures would reduce the Proposed Project's water demand by at least 20 percent. In addition, to reduce landscaping demand by at least 50 percent, the Proposed Project should include the following features: weather-based irrigation controller with rain shutoff; matched precipitation (flow) rates for sprinkler heads; drip/microspray/subsurface irrigation where appropriate; minimum irrigation system distribution uniformity of 75 percent; use of permeable surfaces for non-vehicular traffic areas; proper hydro-zoning and turf minimization; and use of landscape contouring to minimize precipitation runoff.

In addition to incorporating water conservation measures into new projects, NCWD, CLWA and the local purveyors completed work on a Santa Clarita Valley Water Use Efficiency Strategic Plan (WUESP, 2008). This plan identifies specific programs to assure the achievement of the ten percent goal in the 2010 UWMP. These programs are being funded through a surcharge to the wholesale water rate.

4.0 WATER USE

4.1 Historical Water Use

NCWD's water use for the last 32 years is shown in Table 4-1. Table 4-2 illustrates the region's water use for the same period.

Table 4-1
Historical Water Use for Newhall County Water District
(acre-feet) (SCVWR, 2011)

Year	*State Water Project*	*Alluvium*	*Saugus Formation*	**Total**
1980	0	1,170	2,363	**3,533**
1981	0	1,350	2,621	**3,971**
1982	0	1,178	2,672	**3,850**
1983	0	1,147	2,787	**3,934**
1984	0	1,549	2,955	**4,504**
1985	0	1,644	3,255	**4,899**
1986	0	1,842	3,548	**5,390**
1987	22	2,127	3,657	**5,806**
1988	142	2,283	4,041	**6,466**
1989	428	2,367	4,688	**7,483**
1990	796	1,936	4,746	**7,478**
1991	675	1,864	4,994	**7,533**
1992	802	1,994	5,160	**7,956**
1993	1,075	1,977	5,068	**8,120**
1994	906	2,225	5,103	**8,234**
1995	1,305	1,675	4,775	**7,755**
1996	1,213	1,803	4,871	**7,887**
1997	1,324	2,309	5,168	**8,801**
1998	1,769	1,761	4,557	**8,087**
1999	5,050	1,676	2,622	**9,348**
2000	6,024	1,508	2,186	**9,718**
2001	5,452	1,641	2,432	**9,525**
2002	5,986	981	3,395	**10,362**
2003	6,572	1,266	2,513	**10,351**
2004	5,896	1,582	3,739	**11,217**
2005	5,932	1,389	3,435	**10,756**
2006	5,898	2,149	3,423	**11,470**
2007	6,478	1,806	3,691	**11,975**
2008	5,428	1,717	4,195	**11,340**
2009	4,832	1,860	3,868	**10,560**
2010	3,035	2,323	4,173	**9,531**
2011	1,331	3,216	5,129*	**9,676**

*Includes treated groundwater sold to NCWD by CLWA from the restoration of Saugus Well Nos. 1 and 2.

Table 4-2
Historical Total Water Use for the Santa Clarita Valley Region (acre-feet) (SCVWR, 2011)

Year	*State Water Project*	*Alluvium*	*Saugus Formation*	*Recycled Water*	**Total**
1980	1,125	31,456	4,589	-	**37,170**
1981	5,816	30,793	4,970	-	**41,579**
1982	9,659	21,868	4,090	-	**35,617**
1983	9,185	20,286	3,852	-	**33,323**
1984	10,996	27,318	4,449	-	**42,763**
1985	11,823	25,347	4,715	-	**41,885**
1986	13,759	24,205	5,485	-	**43,449**
1987	16,285	22,642	5,561	-	**44,488**
1988	19,033	21,648	6,928	-	**47,609**
1989	21,618	23,721	7,759	-	**53,098**
1990	21,613	23,876	8,861	-	**54,350**
1991	7,968	27,187	14,917	-	**50,072**
1992	14,898	27,591	10,924	-	**53,413**
1993	13,836	30,126	10,610	-	**54,572**
1994	14,700	33,133	12,025	-	**59,858**
1995	17,002	34,464	8,560	-	**60,026**
1996	18,873	38,438	8,186	-	**65,497**
1997	23,215	39,599	7,745	-	**70,559**
1998	20,266	36,648	5,555	-	**62,469**
1999	27,302	43,406	3,716	-	**74,424**
2000	32,582	39,649	4,080	-	**76,311**
2001	35,369	37,273	4,140	-	**76,782**
2002	41,768	38,103	5,160	-	**85,031**
2003	44,419	33,577	4,207	700	**82,904**
2004	47,205	33,757	6,503	448	**87,914**
2005	38,034	38,648	6,453	438	**83,573**
2006	40,646	43,061	7,312	419	**91,438**
2007	45,332	38,773	7,684	470	**92,260**
2008	41,705	41,716	6,918	311	**90,650**
2009	38,546	39,986	7,678	328	**86,538**
2010	30,578	41,159	8,092	336	**80,165**
2011	30,850	40,748	8,273*	373	**80,244**

*Includes treated groundwater sold by CLWA from the restoration of Saugus Well Nos. 1 and 2

4.2 Water Use of the Proposed Project

Disney/ABC Studios at The Ranch Proposed Project Water Demand:

In 2011, NCWD's service area-wide demands were approximately 9,676 af (SCVWR, 2011). It has been calculated that the Proposed Project will require approximately 90,594 gallons per day (gpd) or 102 afy for build-out of the proposed media office development option, which represents the Proposed Project's worst-case scenario in terms of water demand. The calculation of this demand is based on 120 percent of the Proposed Project's estimated wastewater generation, using land use-based wastewater generation factors provided by the Sanitation Districts of Los Angeles County. Application of this factor is typical for determining domestic water needs, as wastewater flows are frequently estimated to represent approximately 80 percent of total water usage. The total water demand of 102 afy also assumes the Proposed Project's operations at 365 days per year.

4.3 Future Water Use

The amount of water delivered by NCWD in the recent and future projections by customer are summarized in Table 4-4 below. Table 4-5 summarizes the region's projected water demand as discussed in the 2010 Urban Water Management Plan.

Table 4-4
Current, and Projected Water Demands (by customer type)
Newhall County Water District (2010 UWMP)

Year	Water Use Sectors	Single Family Residential (a)	Multi Family Residential (a)	Commercial	Construction/ Industrial	Institutional/ Government	Landscape	Total
2010 (c)	No. of Accounts	8,500	4,893	400	80	70	250	14,193
	Deliveries (AF)	6,400	1,500	560	100	400	1,600	10,560
2015	No. of Accounts	10,135	4,955	476	95	83	298	16,042
	Deliveries (AF)	7,631	1,785	655	119	476	1,906	12,571
2020	No. of Accounts	11,485	5,003	540	108	94	337	17,568
	Deliveries (AF)	8,647	2,023	742	135	540	2,159	14,246
2025	No. of Accounts	12,620	5,093	600	135	120	375	18,493
	Deliveries (AF)	9,665	2,261	831	151	603	2,412	15,922
2030	No. of Accounts	14,188	5,100	667	133	117	417	20,621
	Deliveries (AF)	10,682	2,499	917	168	667	2,666	17,598
2035	No. of Accounts	15,538	5,148	730	146	128	456	22,146
	Deliveries (AF)	11,699	2,737	1,005	182	730	2,920	19,273
2040	No. of Accounts	16,889	5,196	794	159	139	496	23,673
	Deliveries (AF)	12,716	2,975	1,091	198	793	3,175	20,949
2045	No. of Accounts	18,241	5,245	857	171	150	536	25,200
	Deliveries (AF)	13,733	3,213	1,179	214	857	3,428	22,624
2050	No. of Accounts	19,591	5,293	921	184	161	575	26,725
	Deliveries (AF)	14,750	3,452	1,266	230	920	3,681	24,300

Notes:
(a) Projected Single Family and Multi-Family residential accounts have been adjusted from the 2005 UWMP to reflect dwelling units.
(b) Totals do not include fire services.
(c) Year 2010 projection based on 2009 actual data. Growth to 2015 reflects six years of data.

Table 4-5
Regional Projected Water Demands [(1)(2)(3)]

	2010	2015	2020	2025	2030	2035	2040	2045	2050	Annual Increase
Water Demands										
LACWWD 36[(4)]	1,243	1,759	2,189	2,619	3,048	3,478	3,908	4,338	4,768	3.50%
NCWD	10,560	12,571	14,246	15,922	17,598	19,273	20,949	22,624	24,300	2.20%
SCWD	27,816	31,633	34,814	37,995	41,176	44,357	47,538	50,719	53,900	1.70%
VWC	30,354	34,107	37,235	40,362	43,490	46,617	49,745	52,872	56,000	1.60%
Total Demand	69,973	80,070	88,484	96,898	105,313	113,725	122,141	130,553	138,968	1.80%

Notes:
(1) Summary of demands from 2010 UWMP Tables 2-3 to 2-6.
(2) Reflects existing and projected demands in CLWA service area only. CLWA's Annexation Policy requires annexing parties to provide additional fully reliable supplies.
(3) Demands exclude non-purveyor demands. Similarly, supplies evaluated in this UWMP exclude non-purveyor supplies.
(4) LACWWD 36 included for purposes of providing regional completeness

5.0 NORMAL, SINGLE-DRY, AND MULTIPLE-DRY YEAR PLANNING

The following sections summarize the existing and planned supplies and how they will be utilized during Normal, Single-Dry, and Multiple-Dry Years. The text and tables were taken from the 2010 UWMP.

5.1 Summary of Existing and Planned Supplies

A summary of existing and planned water supplies is presented in Table 5-1 below. Table 5-1 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 NCWD, CLWA and the other purveyors the option of drawing on multiple sources of supply in response to changing conditions such as varying weather patterns (average/normal years, single dry years, multiple dry years), fluctuations in delivery amounts of SWP water, natural disasters and contamination with substances such as perchlorate. It is the stated goal of NCWD, 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 40 years in combination with conservation of non-essential demand during certain dry years, the water supply plan described in the 2010 UWMP successfully achieves this goal.

TABLE 5-1
SUMMARY OF CURRENT AND PLANNED WATER SUPPLIES AND BANKING PROGRAMS[a]

	2010	2015	2020	2025	2030	2035	2040	2045	2050
Existing Supplies									
Existing Groundwater[b]									
Alluvial Aquifer	24,385	24,000	24,000	24,000	25,000	25,000	25,000	25,000	25,000
Saugus Formation[c]	6,725	9,225	10,225	10,225	10,225	10,225	10,225	10,225	10,225
Total Groundwater	**31,110**	**33,225**	**34,225**	**34,225**	**35,225**	**35,225**	**35,225**	**35,225**	**35,225**
Recycled Water[d] **Total Recycled**	**325**	**325**	**325**	**325**	**325**	**325**	**325**	**325**	**325**
Imported Water									
State Water Project[e]	58,300	58,100	57,900	57,600	57,400	57,400	57,400	57,400	57,400
Flexible Storage Accounts[f]	6,060	6,060	4,680	4,680	4,680	4,680	4,680	4,680	4,680
Buena Vista-Rosedale	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607
Total Imported	**76,967**	**76,767**	**75,187**	**74,887**	**74,687**	**74,687**	**74,687**	**74,687**	**74,687**
Existing Banking Programs[g]									
Rosedale Rio-Bravo	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Semitropic	15,000	15,000	15,000	-	-	-	-	-	-
Semitropic - Newhall Land	4,950	4,950	4,950	4,950	4,950	4,950	4,950	4,950	4,950
Total Banking	**39,950**	**39,950**	**39,950**	**24,950**	**24,950**	**24,950**	**24,950**	**24,950**	**24,950**
Planned Supplies									
Future Groundwater[h]									
Alluvial Aquifer	-	-	1,000	2,000	3,000	4,000	5,000	6,000	7,000
Saugus Formation	-	1,375	1,375	1,375	1,375	1,375	1,375	1,375	1,375
Total Groundwater	**-**	**1,375**	**2,375**	**3,375**	**4,375**	**5,375**	**6,375**	**7,375**	**8,375**
Recycled Water[i]	-	975	2,725	5,225	7,775	10,275	13,775	17,275	20,975
Planned Banking Programs	-	-	-	10,000	10,000	20,000	20,000	20,000	20,000

Notes:

(a) The values shown under "Existing Supplies" and "Planned Supplies" are projected to be available in average/normal years. The values shown under "Existing Banking Programs" and "Planned Banking Programs" are the maximum capacity of program withdrawals.

(b) Existing groundwater supplies represent the quantity of groundwater anticipated to be pumped with existing wells. As indicated in Tables 3-8 and 3-9 and Tables 3-4 and 3-5 of the 2009 Groundwater Basin Yield Analysis, individual purveyors may have well capacity in excess of quantities shown in this table. As indicated in Table 3-10, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 3-5.

(c) SCWD's existing Saugus 1 and Saugus 2 wells resumed production in 2011 with the completion of the perchlorate treatment facility.

(d) Represents recycled water being delivered in 2010 with existing facilities. CLWA currently has 1,700 AFY under contract.

(e) SWP supplies are based on the Department of Water Resources "*2009 State Water Project Delivery Reliability Report*."

(f) Includes both CLWA and Ventura County entities flexible storage accounts. Initial term of agreement with Ventura County entities expires after 2015.

(g) Supplies shown are annual amounts that can be withdrawn and would typically be used only during dry years.

(h) Planned groundwater supplies represent new groundwater well capacity that may be required by an individual purveyor's production objectives in the Alluvial Aquifer and the Saugus Formation. When combined with existing purveyor and non-purveyor groundwater supplies, total groundwater production remains within the sustainable ranges identified in Table 3-8 of 2009 Groundwater Basin Yield Analysis. As indicated in Table 3-10, existing and planned groundwater pumping remain within the basin operating plan shown on Table 3- 5.

(i) See 2010 UWMP Table 4-3. Total Purveyor and Non-Purveyor Recycled Water less Existing Supply.

5.2 Normal Water Year

Table 5-2 summarizes the water suppliers' supplies available to meet demands over the 40-year planning period during an average/normal year. As presented in the table, the water suppliers' water supply is broken down into existing and planned water supply sources, including wholesale (imported) water, local supplies and banking programs. Demands are shown with and without the urban demand reduction resulting from SBX7-7 conservation objectives.

TABLE 5-2
PROJECTED AVERAGE/NORMAL YEAR SUPPLIES AND DEMANDS

	2015	2020	2025	2030	2035	2040	2045	2050
Existing Supplies								
Existing Groundwater[a]								
Alluvial Aquifer	24,000	24,000	24,000	25,000	25,000	25,000	25,000	25,000
Saugus Formation[b]	9,225	10,225	10,225	10,225	10,225	10,225	10,225	10,225
Total Groundwater	**33,225**	**34,225**	**34,225**	**35,225**	**35,225**	**35,225**	**35,225**	**35,225**
Recycled Water[c]	325	325	325	325	325	325	325	325
Imported Water								
State Water Project[d]	58,100	57,900	57,600	57,400	57,400	57,400	57,400	57,400
Flexible Storage Accounts	-	-	-	-	-	-	-	-
Buena Vista-Rosedale	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607
Total Imported	**70,707**	**70,507**	**70,207**	**70,007**	**70,007**	**70,007**	**70,007**	**70,007**
Banking Programs[e]								
Rosedale Rio-Bravo	-	-	-	-	-	-	-	-
Semitropic	-	-	-	-	-	-	-	-
Semitropic - Newhall Land	-	-	-	-	-	-	-	-
Total Banking	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total Existing Supplies	**104,257**	**105,057**	**104,757**	**105,557**	**105,557**	**105,557**	**105,557**	**105,557**

TABLE 5-2 CON'T
PROJECTED AVERAGE/NORMAL YEAR SUPPLIES AND DEMANDS

	2015	2020	2025	2030	2035	2040	2045	2050
Planned Supplies								
Future Groundwater[f]								
Alluvial Aquifer	-	1,000	2,000	3,000	4,000	5,000	6,000	7,000
Saugus Formation	1,375	1,375	1,375	1,375	1,375	1,375	1,375	1,375
Total Groundwater	**1,375**	**2,375**	**3,375**	**4,375**	**5,375**	**6,375**	**7,375**	**8,375**
Recycled Water[c]	975	2,725	5,225	7,775	10,275	13,775	17,275	20,975
Banking Programs[e]	-	-	-	-	-	-	-	-
Total Planned Supplies	**2,350**	**5,100**	**8,600**	**12,150**	**15,650**	**20,150**	**24,650**	**29,350**
Total Existing and Planned Supplies	**106,607**	**110,157**	**113,357**	**117,707**	**121,207**	**125,707**	**130,207**	**134,907**
Demand w/o Conservation[g]	80,070	88,484	96,898	105,312	113,726	122,140	130,554	138,968
20x2020 Reduction[h]	9,027	19,626	21,166	22,770	24,342	25,914	27,486	29,058
Reduction from Recycled Water[i]	1,300	3,050	5,550	8,100	10,600	14,100	17,600	21,300
Reduction from Water Conservation[j]	7,727	16,576	16,662	16,748	16,833	16,919	17,005	17,091
Demand w/ Conservation[k]	72,343	71,908	80,236	88,564	96,892	105,220	113,549	121,877

Notes:

(a) Existing groundwater supplies represent the quantity of groundwater anticipated to be pumped with existing wells. As indicated in Tables 3-8 and 3-9 and Tables 3-4 and 3-5 of the 2009 Groundwater Basin Yield Analysis, individual purveyors may have well capacity in excess of quantities shown in this table. As indicated in 2010 UWMP Table 3-10, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 3-5.

(b) SCWD's existing Saugus 1 and Saugus 2 wells resumed production in 2011 with the completion of the perchlorate treatment facility.

(c) Recycled water projections from 2010 UWMP Table 4-3.

(d) SWP supplies are based on the Department of Water Resources "*2009 State Water Project Delivery Reliability Report*."

(e) Not needed in average/normal years.

(f) Planned groundwater supplies represent new groundwater well capacity that may be required by an individual purveyor's production objectives in the Alluvial Aquifer and the Saugus Formation. As indicated in Table 3-10, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 3- 5 of the 2010 UWMP

(g) Demand w/o Conservation data from 2010 UWMP Table 2-2.

(h) 20x2020 Reduction for the Region from 2010 UWMP Table 2-22.

(i) Recycled Water Reduction for the Region from 2010 UWMP Table 2-22; does not include demands from Honor Rancho.

(j) Reduction from Water Conservation calculation for Region from 2010 UWMP Table 2-22.

(k) Demand w/ Conservation is Demand w/o Conservation minus Reduction from Water Conservation.

5.3 Single-Dry Year

The water supplies and demands for the water suppliers over the 40-year planning period were analyzed in the event that a single-dry year occurs, similar to the drought that occurred in California in 1977. Table 5-3 summarizes the existing and planned supplies available to meet demands during a single-dry year. Base demand (demand without conservation) during dry years was assumed to increase by 10 percent. Demands are also shown with the urban demand reduction resulting from SBX7-7 conservation objectives.

TABLE 5-3
PROJECTED SINGLE-DRY YEAR SUPPLIES AND DEMANDS

	2015	2020	2025	2030	2035	2040	2045	2050
Existing Supplies								
Existing Groundwater[a]								
Alluvial Aquifer	20,300	20,250	20,200	21,050	21,050	21,025	21,000	20,650
Saugus Formation	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400
Total Groundwater	**40,700**	**40,650**	**40,600**	**41,450**	**41,450**	**41,425**	**41,400**	**41,050**
Recycled Water[b]	325	325	325	325	325	325	325	325
Imported Water								
State Water Project[c]	11,900	11,000	10,000	9,100	9,100	9,100	9,100	9,100
Flexible Storage Accounts[d]	6,060	4,680	4,680	4,680	4,680	4,680	4,680	4,680
Buena Vista-Rosedale	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607
Total Imported	**30,56**	**28,287**	**27,287**	**26,387**	**26,387**	**26,387**	**26,387**	**26,387**
Banking Programs								
Rosedale Rio-Bravo[e]	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Semitropic[f]	15,000	15,000	-	-	-	-	-	-
Semitropic - Newhall Land[g]	4,950	4,950	4,950	4,950	4,950	4,950	4,950	4,950
Total Banking	**39,950**	**39,950**	**24,950**	**24,950**	**24,950**	**24,950**	**24,950**	**24,950**
Total Existing Supplies	**111,542**	**109,212**	**93,162**	**93,112**	**93,112**	**93,087**	**93,062**	**92,712**
Planned Supplies								
Future Groundwater[h]								
Alluvial Aquifer	200	1,250	2,300	3,850	4,850	5,875	6,900	7,750
Saugus Formation (Restored Well)	825	3,777	3,777	3,777	3,777	3,777	3,777	3,750
Saugus Formation (New Wells)	2,875	9,923	9,923	9,923	9,923	9,923	9,923	9,950
Total Groundwater	**3,900**	**14,950**	**16,000**	**17,550**	**18,550**	**19,575**	**20,600**	**21,450**

TABLE 5-3 CON'T
PROJECTED SINGLE-DRY YEAR SUPPLIES AND DEMANDS

	2015	2020	2025	2030	2035	2040	2045	2050
Recycled Water[b]	975	2,725	5,225	7,775	10,275	13,775	17,275	20,975
Banking Programs[i]	-	-	10,000	10,000	20,000	20,000	20,000	20,000
Total Planned Supplies	**4,875**	**17,675**	**31,225**	**35,325**	**48,825**	**53,350**	**57,875**	**62,425**
Total Existing and Planned Supplies	116,417	126,887	124,387	128,437	141,937	146,437	150,937	155,137
Demand w/o Conservation[j]	88,077	97,332	106,588	115,843	125,099	134,354	143,609	152,865
20x2020 Reduction[k]	9,027	19,626	21,166	22,770	24,342	25,914	27,486	29,058
Reduction from Recycled Water[l]	1,300	3,050	5,550	8,100	10,600	14,100	17,600	21,300
Reduction from Water Conservation[m]	7,727	16,576	16,662	16,748	16,833	16,919	17,005	17,091
Demand w/ Conservation[n]	80,350	80,757	89,926	99,096	108,265	117,434	126,604	135,773

Notes:

(a) Existing groundwater supplies represent the quantity of groundwater anticipated to be pumped with existing wells. As indicated in 2010 UWMP Tables 3-8 and 3-9 and Tables 3-4 and 3-5 of the 2009 Groundwater Basin Yield Analysis, individual purveyors may have well capacity in excess of quantities shown in this table. As indicated in 2010 UWMP Table 3-11, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 3-5. SCWD's existing Saugus 1 and Saugus 2 wells resumed production in 2011 with the completion of the perchlorate treatment facility.

(b) Recycled water projections from 2010 UWMP Table 4-3.

(c) SWP supplies are based on the Department of Water Resources "*2009 State Water Project Delivery Reliability Report*."

(d) Includes both CLWA and Ventura County entities flexible storage accounts. Initial Term of agreement with Ventura County entities expires after 2015.

(e) CLWA has a maximum withdrawal capacity of 20,000 AFY and a storage capacity of 100,000 AF. As of 6/1/2011, there is 100,000 AF of recoverable water.

(f) CLWA has 45,920 AF of recoverable water as of 6/1/2011.

(g) Newhall Land has a maximum withdrawal capacity of 4,950 AFY and a storage capacity of 55,000 AF. As of 6/1/2011 there is 18,892 AF of recoverable water. Delivery of stored water from the Newhall Land's Semitropic Water Banking and Exchange Program is assumed available to VWC.

(h) Planned groundwater supplies represent new groundwater well capacity that may be required by an individual purveyor's production objectives in the Alluvial Aquifer and the Saugus Formation, including 3,777 AFY of restored capacity from VWC Well 201 and approximately 10,000 AFY of new Saugus Formation well capacity. When combined with existing purveyor and non-purveyor groundwater supplies, total groundwater production is consistent with the 1977 single dry-year levels identified in Table 3-8 of the 2009 Groundwater Basin Yield Analysis. As indicated in 2010 UWMP Table 3-11, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 3-5 of the 2010 UWMP .

(i) Includes banking programs with 10,000 AF of additional pumpback capacity by 2025 and a second additional 10,000 AF by 2035.

(j) Demand w/o Conservation data from 2010 UWMP Table 2-2. Includes a 10 percent increase in demand during dry years.

(k) 20x2020 Reduction for the Region from 2010 UWMP Table 2-22.

(l) Recycled Water Reduction for the Region from 2010 UWMP Table 2-22; does not include demands from Honor Rancho.

(m) Reduction from Water Conservation calculation for Region from 2010 UWMP Table 2-22.

(n) Demand w/ Conservation is Demand w/o Conservation minus Reduction from Water Conservation.

5.4 Multiple-Dry Year

The water supplies and demands for the water suppliers' water supply over the 40-year planning period were analyzed in the event that a four-year multiple-dry year event occurs, similar to the drought that occurred during the years 1931 to 1934. Table 5-4 summarizes the existing and planned supplies available to meet demands during multiple-dry years. Base demand during dry years was assumed to increase by 10 percent. Demands are also shown with the urban demand reduction resulting from SBX7-7 conservation objectives.

TABLE 5-4
PROJECTED MULTIPLE-DRY YEAR SUPPLIES AND DEMANDS

	2015	2020	2025	2030	2035	2040	2045	2050
Existing Supplies								
Existing Groundwater[a]								
Alluvial Aquifer	20,425	20,425	20,425	21,825	21,825	21,825	21,825	21,325
Saugus Formation	19,700	19,700	19,700	19,700	19,700	19,700	19,700	19,700
Total Groundwater	**40,125**	**40,125**	**40,125**	**41,525**	**41,525**	**41,525**	**41,525**	**41,025**
Recycled Water[b]	325	325	325	325	325	325	325	325
Imported Water								
State Water Project[c]	32,900	32,900	33,000	33,000	33,000	33,000	33,000	33,000
Flexible Storage Accounts[d]	1,510	1,170	1,170	1,170	1,170	1,170	1,170	1,170
Buena Vista-Rosedale	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water - Newhall Land	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607
Total Imported	**47,017**	**46,677**	**46,777**	**46,777**	**46,777**	**46,777**	**46,777**	**46,777**
Banking Programs								
Rosedale Rio-Bravo[e]	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Semitropic[f]	11,500	11,500	-	-	-	-	-	-
Semitropic - Newhall Land[g]	4,950	4,950	4,950	4,950	4,950	4,950	4,950	4,950
Total Banking	**31,450**	**31,450**	**19,950**	**19,950**	**19,950**	**19,950**	**19,950**	**19,950**
Total Existing Supplies	**118,917**	**118,577**	**107,177**	**108,577**	**108,577**	**108,577**	**108,577**	**108,077**
Planned Supplies								
Future Groundwater[h]								
Alluvial Aquifer	-	1,000	2,000	3,000	4,000	5,000	6,000	7,000
Saugus Formation (Restored Well)	2,375	1,625	1,500	1,400	1,275	1,125	1,000	875
Saugus Formation (New Wells)	2,250	10,325	10,450	10,550	10,675	10,825	10,950	11,075
Total Groundwater	**4,625**	**12,950**	**13,950**	**14,950**	**15,950**	**16,950**	**17,950**	**18,950**

TABLE 5-4 CON'T
PROJECTED MULTIPLE-DRY YEAR SUPPLIES AND DEMANDS

	2015	2020	2025	2030	2035	2040	2045	2050
Recycled Water[b]	975	2,725	5,225	7,775	10,275	13,775	17,275	20,975
Banking Programs[i]	-	-	7,500	7,500	15,000	15,000	15,000	15,000
Total Planned Supplies	**5,600**	**15,675**	**26,675**	**30,225**	**41,225**	**45,725**	**50,225**	**54,925**
Total Existing and Planned Supplies	**124,517**	**134,252**	**133,852**	**138,802**	**149,802**	**154,302**	**158,802**	**163,002**
Demand w/o Conservation[j]	88,068	97,325	106,582	115,838	125,095	134,352	143,608	152,865
20x2020 Reduction[k]	9,027	19,626	21,166	22,770	24,342	25,914	27,486	29,058
Reduction from Recycled Water[l]	1,300	3,050	5,550	8,100	10,600	14,100	17,600	21,300
Reduction from Water Conservation[m]	7,727	16,576	16,662	16,748	16,833	16,919	17,005	17,091
Demand w/ Conservation[n]	80,342	80,749	89,920	99,091	108,261	117,432	126,603	135,773

Notes:

(a) Existing groundwater supplies represent the quantity of groundwater anticipated to be pumped with existing wells. As indicated in 2010 UWMP Tables 3-8 and 3-9 and Tables 3-4 and 3-5 of the 2009 Groundwater Basin Yield Analysis, individual purveyors may have well capacity in excess of quantities shown in this table. As indicated in 2010 UWMP Table 3-12, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 3-5. SCWD's existing Saugus 1 and Saugus 2 wells resumed production in 2011 with the completion of the perchlorate treatment facility.

(b) Recycled water projections from 2010 UWMP Table 4-3.

(c) SWP supplies are based on the Department of Water Resources "*2009 State Water Project Delivery Reliability Report*."

(d) Includes both CLWA and Ventura County entities flexible storage accounts. Initial Term of agreement with Ventura County entities expires after 2015.

(e) CLWA has a maximum withdrawal capacity of 20,000 AFY and a storage capacity of 100,000 AF. As of 6/1/2011, there is 100,000 AF of recoverable water.

(f) CLWA has 45,920 AF of recoverable water as of 6/1/2011.

(g) Newhall Land has a maximum withdrawal capacity of 4,950 AFY and a storage capacity of 55,000 AF. As of 6/1/2011 there is 18,892 AF of recoverable water. Delivery of stored water from the Newhall Land's Semitropic Water Banking and Exchange Program is assumed available to VWC.

(h) Planned groundwater supplies represent new groundwater well capacity that may be required by an individual purveyor's production objectives in the Alluvial Aquifer and the Saugus Formation, including 3,777 AFY of restored capacity from VWC Well 201 and approximately 10,000 AFY of new Saugus Formation well capacity. When combined with existing purveyor and non-purveyor groundwater supplies, total groundwater production is consistent with the 1931-1934 multiple dry-year levels identified in Table 3-8 of the 2009 Groundwater Basin Yield Analysis. As indicated in 2010 UWMP Table 3-12, existing and planned groundwater pumping remain within the groundwater operating plan shown on Table 3-5 of the 2010 UWMP.

(i) Includes banking programs with 10,000 AF of additional pumpback capacity by 2025 and a second additional 10,000 AF by 2035.

(j) Demand w/o Conservation data from 2010 UWMP Table 2-2. Includes a 10 percent increase in demand during dry years.

(k) 20x2020 Reduction for the Region from 2010 UWMP Table 2-22.

(l) Recycled Water Reduction for the Region from 2010 UWMP Table 2-22; does not include demands from Honor Rancho.

(m) Reduction from Water Conservation calculation for Region from 2010 UWMP Table 2-22.

(n) Demand w/ Conservation is Demand w/o Conservation minus Reduction from Water Conservation.

6.0 CONCLUSION

Based on the analysis set forth in this WSA and as supported by the documents relied on for its preparation, NCWD's total projected water supplies available during the ensuing twenty years will meet the projected water demands associated with the Proposed Project, Disney/ABC Studios at The Ranch and existing and other planned uses within NCWD's service area. This determination is consistent with current information and NCWD's 2010 UWMP.

This Water Supply Assessment shall expire and be of no further force and effect after (3) three years from the date of submittal.