

Rosamond
Community
Services
District

2015 Urban Water Management Plan



Prepared by

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List of Abbreviations and Acronyms

AF	Acre-Foot or Acre-Feet
AFY	Acre-Foot per Year
AVEK	Antelope Valley East Kern Water Agency
AVIRWMP	Antelope Valley Integrated Regional Water Management Plan
BMP	Best Management Practice
CII	Commercial, Industrial, Institutional, water use sectors
CUWCC	California Urban Water Conservation Council
CWC	California Water Code
District No. 40	Los Angeles County Water Works District No. 40
DMMs	Demand Management Measures
DWR	Department of Water Resources
ERPs	Emergency Response Procedures
°F	Degrees Fahrenheit
GPCD	Gallons per Capita per Day
gpd	gallons per day
gpm	Gallons per Minute
Guidebook	2015 Urban Water Management Plans Guidebook for Urban Water Suppliers
LADWP	Los Angeles Department of Water and Power
mgd	Million Gallons per Day
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
NACWA	National Association of Clean Water Agencies
PWD	Palmdale Water District
QHWD	Quartz Hill Water District
RCSD or District	Rosamond Community Services District
RWWTP	Rosamond Wastewater Treatment Plant
SB X7-7	Senate Bill Seven of the Senate's Seventh Extraordinary Session of 2009
SWP	State Water Project
UWMP or Plan	Urban Water Management Plan
UWMPA	Urban Water Management Plan Act
WSCP	Water Shortage Contingency Plan
WSWB	Willow Springs Water Bank

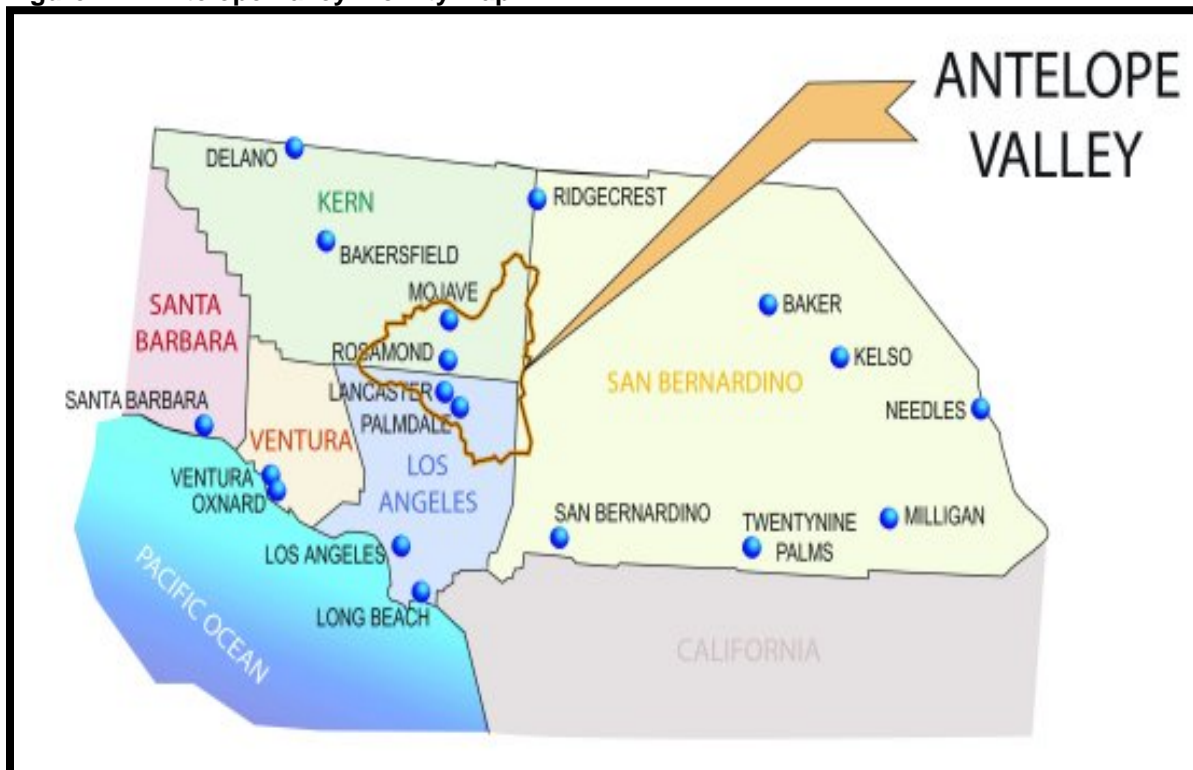
Section 1.0. Introduction

1.1 Background and Purpose

The California Urban Water Management Planning Act (UWMPA), as contained within Division 6 of the California Water Code (CWC), requires urban water suppliers that have 3,000 or more service connections or those that supply 3,000 acre-feet per year (AFY) or more of water to develop an Urban Water Management Plan (UWMP or Plan). UWMPs are required to be updated every 5 years and be submitted to the California Department of Water Resources (DWR) for review. The Plan is required to describe and evaluate water deliveries and uses, water supply sources, efficient water uses, Demand Management Measures (DMMs) and water shortage contingency planning.

The Rosamond Community Services District (RCSD or District) has prepared its 2015 UWMP Update in accordance with the DWR “2015 Urban Water Management Plans Guidebook for Urban Water Suppliers” (Guidebook) for a retail supplier. The format of the Plan generally follows the recommended organization in Chapter 1.4 of the Guidebook and incorporates the applicable standardized tables for retail providers as numbered and shown in the Guidebook. Some of the tables in the Guidebook are not applicable to the District’s Plan and are not included as noted in the Plan. This 2015 UWMP is an update to RCSD’s 2010 UWMP. Data for the District is through 2015 only.

Figure 1-1: Antelope Valley Vicinity Map



Section 2.0. Plan Preparation

2.1 Plan and Agency Identification

RCSD has prepared an Individual UWMP as a retail agency. Information in the UWMP is presented in Calendar Year format and water quantities are presented in acre-feet (AF). See Tables 2-2 and 2-3.

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015 (AF)
1510018	Rosamond Community Services District	4,777	2,268
TOTAL		4,777	2,268
NOTES:			

Table 2-2 Plan Identification

Table 2-2: Plan Identification		
Select Only One	Type of Plan	Name of RUWMP or Regional Alliance <i>if applicable</i> <i>drop down list</i>
<input checked="" type="checkbox"/>	Individual UWMP	
	<input checked="" type="checkbox"/> Water Supplier is also a member of a RUWMP	Antelope Valley IRUWMP
	<input type="checkbox"/> Water Supplier is also a member of a Regional Alliance	
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)	
NOTES:		

Table 2-3 Agency Identification

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
<input type="checkbox"/>	Agency is a wholesaler
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year (select one)	
<input checked="" type="checkbox"/>	UWMP Tables Are in Calendar Years
<input type="checkbox"/>	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES:	

Law

Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable (10620(d)(2)).

Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan (10642).

Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c) (10631(j)).

RCSD relies on its groundwater rights and the supplemental imported water supply from the State Water Project (SWP), via the Antelope Valley East Kern Water Agency (AVEK), the wholesale agency and SWP Water Contractor for the area.

Table 2-4 lists the water suppliers that were informed of RCSD’s water supply projections as a part of the UWMP development process.

Table 2-4 Retail: Water Supplier Information Exchange

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name <i>(Add additional rows as needed)</i>
Antelope Valley-East Kern Water Agency (AVEK)
Palmdale Water District (PWD)
Los Angeles County Water Works District No. 40 (District No. 40)
Quartz Hill Water District (QHWD)
Edwards Air Force Base
NOTES: Copies of notices and notification lists are included in Appendix A.

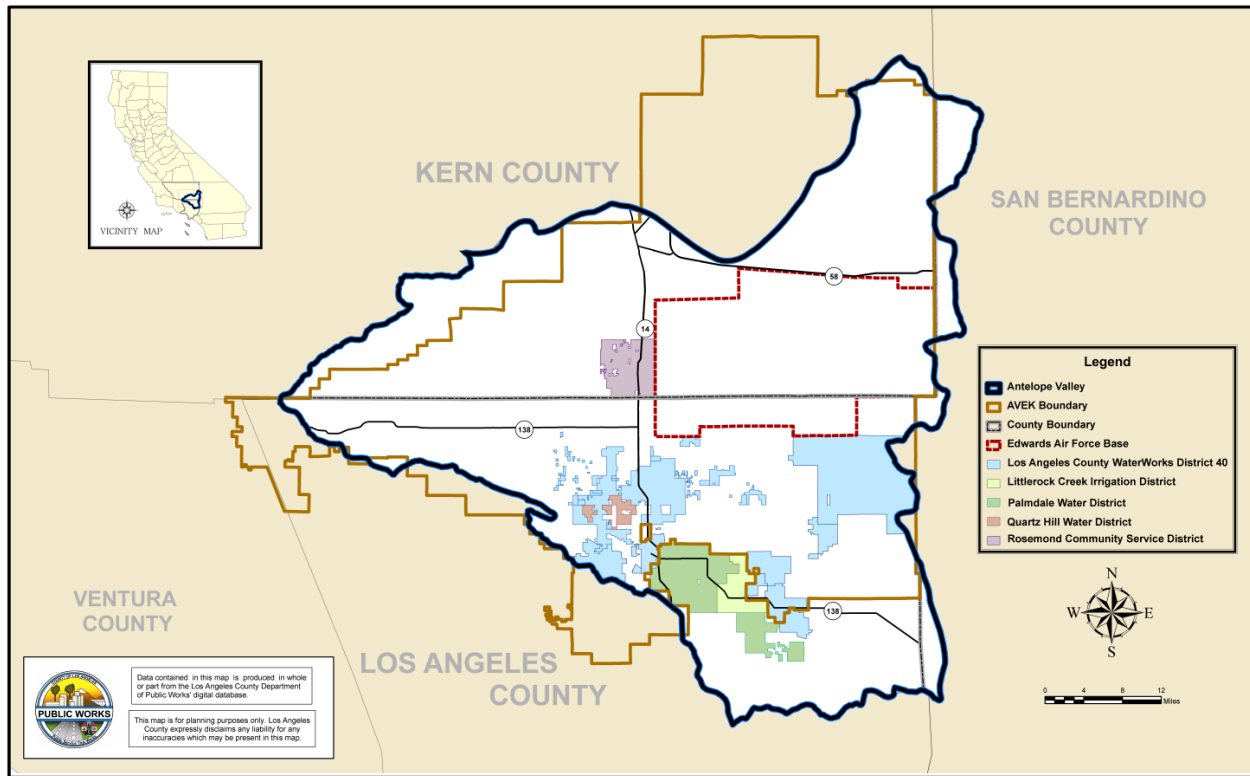
A notice of the preparation of the District’s 2015 UWMP Update and a notice of the date for the public hearing for the Plan was provided to the agencies listed in Table 2-4. The notifications are an effort to improve coordination with the agencies and facilitate better management of the shared resources in the Antelope Valley.

Following this agency coordination list is a brief overview of each water purveyor in the Antelope Valley. Figure 2-1 provides a map of the respective water purveyors’ service areas.

- Los Angeles County Water Works District No. 40 (District No. 40)
- Palmdale Water District (PWD)
- Quartz Hill Water District (QHWD)

RCSD participated in the preparation of the Antelope Valley Integrated Regional Water Management Plan (AVIRWMP, See Appendix C) that contains region wide water usage and population projections, shared objectives for long-term water management, and proposed projects to help meet these objectives. The 2013 Update of the AVIRWMP has been used for reference in completion of RCSD’s UWMP. The Los Angeles County Department of Regional Planning completed an update of the Antelope Valley Area Plan in June 2015. The Antelope Valley Area Plan has also been used for reference in completion of this UWMP.

Figure 2-1: Antelope Valley Boundaries



District No. 40

District No. 40 was formed in accordance with Division 16 Sections 55000 through 55991 of the State Water Code to supply water for urban use throughout the Antelope Valley. It is governed by the Los Angeles County Board of Supervisors with the Waterworks Division of the County Department of Public Works providing administration, operation and maintenance of District No. 40’s facilities. District No. 40 is comprised of eight regions serving customers in the cities of Lancaster and Palmdale (Regions 4 and 34), Pearblossom (Region 24), Littlerock (Region 27), Sun Village (Region 33), Rock Creek (Region 39), Northeast Los Angeles County (Region 35), and Lake Los Angeles (Region 38). Regions 4 and 34 are integrated and are operated as one system. Similarly, Regions 24, 27, and 33 are also integrated and operated as one system. The various regions were consolidated into a single district on November 2, 1993. District No. 40 encompasses approximately 554 square miles.

QHWD

QHWD is located in the southwest end of the Antelope Valley. It is 65 miles north of Los Angeles on the Antelope Valley Highway 14 and west of both Palmdale and Lancaster. QHWD occupies an area of about 6 square miles located in the City of Lancaster and unincorporated portions of the County of Los Angeles. Incorporation of QHWD occurred in May 1954 and water service is provided to all residential, commercial, industrial, and agricultural customers, and for environmental and fire protection uses.

PWD

PWD encompasses an area of about 187 square miles overlying more than 30 noncontiguous areas scattered throughout the southern Antelope Valley, including the communities of Juniper Hills and Llano. There are three noncontiguous areas in and around the City of Palmdale that can be considered PWD's principal areas for water supply, water service, and water resource management. These three areas are:

- A primary service area of approximately 46 square miles. This area is PWD's primary area for water service, water supply, water treatment, water storage, and transmission and distribution facilities.
- A federal land area of approximately 65 square miles upstream of PWD's Littlerock Dam within the Angeles National Forest. This area encompasses the drainage area of Littlerock Creek to Littlerock Dam. PWD's responsibilities include enhancing, protecting, and managing the quality and quantity of PWD's water supply at Littlerock Dam.
- A noncontiguous secondary area of approximately 2 square miles, northwest of PWD's primary service area within the City of Palmdale. This area is also served by two small water purveyors: El Dorado Mutual Water Company and Westside Mutual Water Company (MWCs). Water is wheeled to the MWCs through facilities owned by AVEK.

Section 3.0. System Description

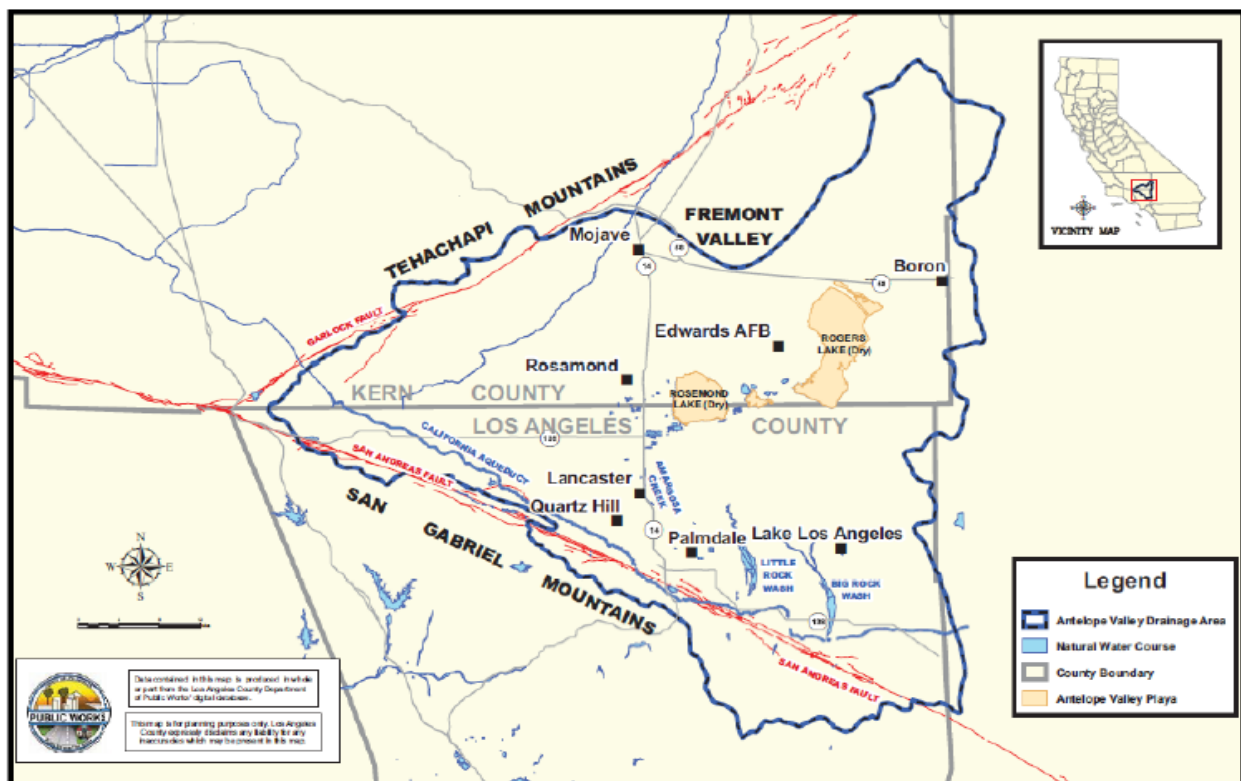
Law

Describe the service area of the supplier (10631(a)).

3.1 General Description

Rosamond is an unincorporated community of Kern County located in the northern section of the Antelope Valley Region, as shown in Figure 3-1. It is located on the south slope of the Rosamond Hills, southeast of the Tehachapi Mountains, approximately 75 miles north of Los Angeles and 70 miles southeast of Bakersfield. Rosamond occupies approximately 50 square miles, or 32,000 acres.

Figure 3-1: Location of Rosamond



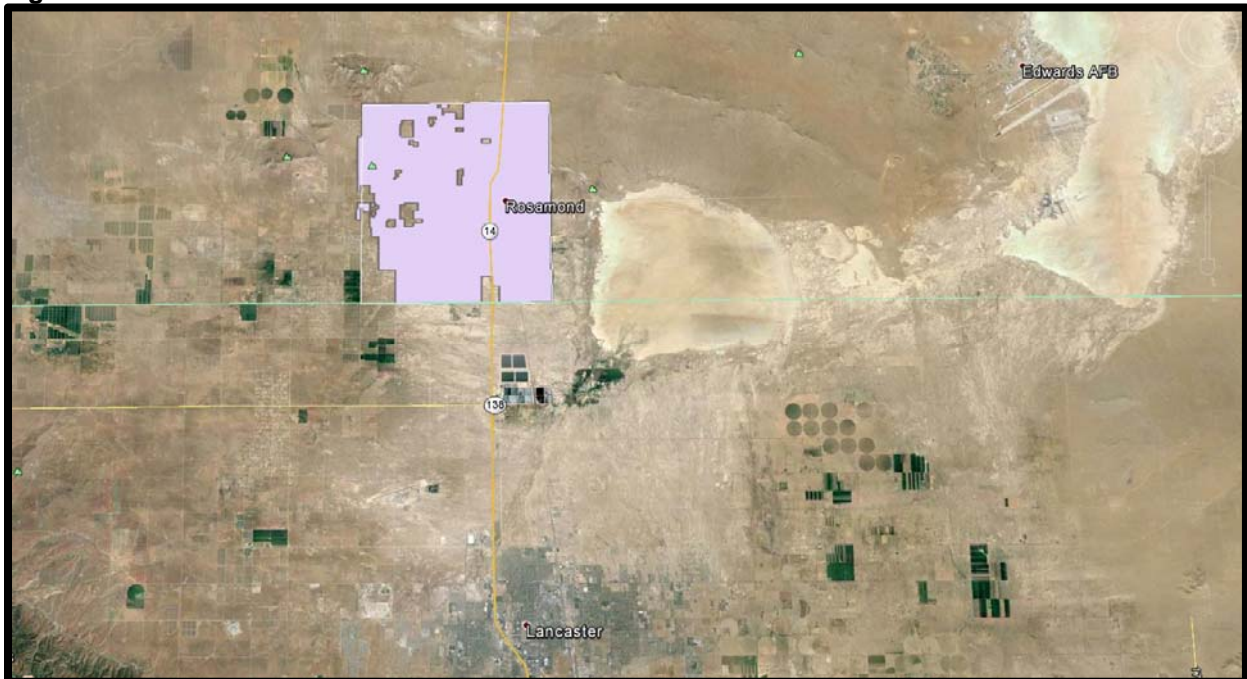
RCSD was formed in 1966 under the Community Services District Law, Division 3, 61000 of Title 6 of the Government Code of the State of California. RCSD provides water and sewer service to residential and commercial customers for domestic, commercial, irrigation, and fire protection uses. Additionally, RCSD provides street lighting, graffiti abatement and parks and recreation services. RCSD's service area boundary encompasses approximately 31 square miles

of unincorporated residential, industrial/commercial, and undeveloped land in Kern County. The majority of the land located within the RCSD's service area is undeveloped. The developed property is centered about central Rosamond, with additional developed areas in the Tropic Hills.

3.2 Service Area Boundary Maps

Below is the RCSD Service Area Boundary Map. RCSD is located in the Antelope Valley just north of Lancaster and west of Edwards Air Force Base.

Figure 3-2: RCSD Location and District Boundaries



Source: DWR population tool (kml file) as shown in Google Earth.

3.3 Service Area Climate

Law

Describe the climate of the supplier (10631(a)).

Within the southwestern portion of the Mojave Desert, the Antelope Valley ranges in elevation from approximately 2,300 feet to 3,500 feet above sea level. Vegetation native to the Antelope Valley is typical of the high desert and include Joshua trees, saltbush, mesquite, juniper, sagebrush, and creosote bush. The climate is characterized by hot summer days, cool summer nights, cool winter days and cold winter nights. As shown in 3-1, mean daily maximum temperatures range from 57°F to 93.3°F, and mean daily minimum temperatures range from 28.1°F to 61.3°F. The growing season is primarily from April to October. Precipitation ranges

from 2 inches per year along the northern boundary to 10 inches per year along the southern boundary with an average of 5.7 annually.

Table 3-1 Climate													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Rainfall (inches)	1.1	0.9	1.0	0.4	0.2	0.0	0.1	0.3	0.2	0.3	0.4	0.8	5.7
Average Max Temperature (°F)	69.8	74.6	73.2	76.9	90.3	91.2	93.3	90.6	81.5	66.3	57.0	60.0	77.0
Average Min Temperature (°F)	28.1	31.4	34.8	39.2	46.8	53.9	61.3	59.1	52.6	42.2	33.3	28.3	42.6
Average ET (inches per month)	2.3	3.1	5.0	6.3	8.3	9.1	9.6	8.8	6.4	4.5	2.9	2.0	68.2

Source: California Irrigation Management Information System data for Palmdale #197 station and Western Regional Climate Center, Palmdale Station.

3.4 Service Area Population and Demographics

Law
(Describe the service area) current and projected population . . . The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier . . . (10631(a)).
. . . (population projections) shall be in five-year increments to 20 years or as far as data is available (10631(a)).
Describe . . . other demographic factors affecting the supplier's water management planning (10631(a)).

Historically, land uses within the Antelope Valley have focused primarily on agriculture; however, the Antelope Valley is in transition from predominately agricultural uses to predominately residential, commercial and industrial uses. As this transition continues, urban water demand is expected to increase.

Growth in the Antelope Valley proceeded at a slow pace until 1985. Between 1985 and 1990, the growth rate increased approximately 1,000 percent from the average growth rate between the years 1956 to 1985. Population growth in the area slowed from the boom at the end of the last century until 2008 at which point growth essentially stopped. Current and projected population for RCSD is shown in Table 3-2. It is estimated that approximately 20,000 people will reside

within RCSD’s service area by 2040. This represents an increase of a little over 10 percent from the current population.

Table 3-2 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040 <i>(opt)</i>
	18,035	18,396	18,764	19,139	19,522	19,912
NOTES:						

3.4.1 Other Demographic Factors

Large agricultural land use to the west of RCSD exists. Over the last 5 years, the amount of agriculture has decreased because of land conversion to solar farming. It is anticipated that the trend of decreasing agricultural lands in the RCSD area will continue because of land conversion and the adjudication of the groundwater basin.

There are no major industrial users and no current plans for any in the future.

Section 4.0. System Water Use

Law

Quantify, to the extent records are available, past and current water use, and projected water use (over the same five-year increments described in subdivision (a)), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses: (A) Single-family residential; (B) Multifamily; (C) Commercial; (D) Industrial; (E) Institutional and governmental; (F) Landscape; (G) Sales to other agencies; (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof; (I) Agricultural (10631(e)(1) and (2)).

The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element if any.

4.1 Recycled Versus Potable and Raw Water Demand

RCSD has the capability to produce more tertiary treated recycled water than there is demand. The infrastructure for recycled water use is not in place to serve any of the potential users. The cost of producing recycled water is prohibitive when compared to alternative sources of supply. Until it becomes economically viable, or mandates from the State change, recycled water will not be produced. See Section 6.5 for a description of the recycled water availability.

4.2 Water Uses by Sector

RCSD currently serves 4,777 connections of which approximately 97 percent are residential. Commercial connections account for approximately two percent, landscape irrigation, non-potable and other connections account for the remaining one percent. Table 4-1 provides a summary of the RCSD existing service usage.

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type <i>(Add additional rows as needed)</i>	2015 Actual		
	Additional Description <i>(as needed)</i>	Level of Treatment When Delivered	Volume
Single Family		Drinking Water	1506
Multi-Family		Drinking Water	236
Commercial		Drinking Water	94
Institutional/Governmental		Drinking Water	32
Landscape		Drinking Water	91
Other	Construction & Bulk Meter	Drinking Water	15
Losses		Drinking Water	259
TOTAL			2,233
NOTES:			

Population projections are often used to determine future demand by utilizing an average water demand (typically based on historic water use). The DWR Population tool was used to predict the water demand projections for RCSD. For other sectors a 2 percent increase was used except for system losses which are expected to decrease as leaks are found and repaired, this is calculated at a 2 percent decrease. See Table 4-2 for water use projections by type.

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type <i>(Add additional rows as needed)</i>	Additional Description <i>(as needed)</i>	Projected Water Use <i>Report To the Extent that Records are Available</i>				
		2020	2025	2030	2035	2040-opt
Single Family		1,564	1,595	1,626	1,657	1,688
Multi-Family		245	250	255	260	265
Commercial		98	100	102	104	106
Institutional/Governmental		34	35	36	37	38
Landscape		94	96	98	100	102
Other	Construction & Bulk Meter	15	15	15	15	15
Losses		254	249	244	239	234
TOTAL		2,304	2,340	2,376	2,412	2,448
NOTES:						

Below is a summary of the recycled and potable water demand projects moving forward.

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 <i>(opt)</i>
Potable and Raw Water <i>From Tables 4-1 and 4-2</i>	2,268	2,304	2,340	2,376	2,412	2,448
Recycled Water Demand* <i>From Table 6-4</i>	0	0	0	0	0	0
TOTAL WATER DEMAND	2,233	2,304	2,340	2,376	2,412	2,448
<i>*Recycled water demand fields will be blank until Table 6-4 is complete.</i>						
NOTES:						
1. Distribution infrastructure for recycled water will not be in place until year 2020.						
2. Current treatment facility production capability is 392 AFY.						
3. Estimated current recycled water demand is 211 AFY.						

4.2.1 Demand Sectors Listed in Water Code

4.2.1.1 Single-Family Residential

RCSD is made up primarily of residential areas. The Single-Family residential users comprise the majority of users.

4.2.1.2 Multi-Family Residential

There are also multi-family residential users that are the second largest users after single family. Combined the residential users account for 78 percent of water use for RCSD.

4.2.1.3 Commercial

There are some commercial uses within RCSD's boundaries. A 2 percent rate increase per year is assumed.

4.2.1.4 Industrial

There is no industrial water usage within RCSD and none is currently planned.

4.2.1.5 Institutional (and governmental)

RCSD provides water to its institutional locations.

4.2.1.6 Landscape

There are irrigation uses for RCSD water both at RCSD sites and non-RCSD sites including parks within the service area boundaries.

4.2.1.7 Sales to other agencies

RCSD is not interconnected with other retail water agencies and therefore does not have sales to other agencies. Wholesale supplies in the region are provided by AVEK.

4.2.1.8 Conjunctive Use

The District has the option to use the Willow Springs Water Bank (WSWB).

4.2.1.9 Groundwater Recharge

RCSD is a partner in the WSWB which allows them to perform groundwater recharge using purchased, or traded, SWP water through AVEK. RCSD has recharged approximately 3,700 AF in the past, and has the ability to recharge an additional 26,300 AF in the future.

4.2.1.10 Saline Water Intrusion Barriers

Antelope Valley is located in the inland desert. While there are no salt water bodies such as an inland sea located in the region, there are dry lakes located on and near Edwards Air Force Base. Underlying groundwater is saltier than other areas within the Antelope Valley; however, the groundwater flows to the dry lakes and as such do not require barriers against saline water intrusion.

4.2.1.11 Agricultural

Agricultural lands are located to the west of the RCSD service area and provide their own water supply. There is no commercial agriculture serviced by RCSD.

4.2.1.12 Distribution System Losses

RCSD has somewhat significant water losses. In 2015, unaccounted for water system loss was 259 AF. See Section 4.3 for more discussion of System Losses.

4.2.2 Demand Sectors in Addition to Those Listed in Water Code

4.2.2.1 Exchanges

RCSD is not interconnected with any local retail water agencies and therefore has no exchanges.

4.2.2.2 Surface Water Augmentation

There is no surface water source that RCSD can use to augment its water supply.

4.2.2.3 Transfers

RCSD is not in any transfer of supplies. However, there is the potential for transfer of supplies through leases and purchases of water rights within the Antelope Valley Groundwater Basin.

4.2.2.4 Wetlands or Wildlife Habitat

There are no wetlands or wildlife habitats in RCSD that require water for maintenance.

4.2.2.5 Other

Other water uses include:

- Firefighting demands
- Line flushing
- Irrigation
- Construction – dust control, soil compaction, etc.

4.3 Distribution System Water Losses

Law

(1) Quantify to the extent records are available, past and current water use over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:... Distribution system losses (10631(e)).

(A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For All subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association (10631(3)).

Losses represents all unaccounted for water, or “apparent losses”, and can be attributed to a variety of factors, including but not limited to meter inaccuracies, fire flows, leaks, and system flushing. A well-maintained water system can expect to have losses around 2 percent. RCSD has significant water losses. In 2015, unaccounted for water system loss was 259 AF, or about 11.4 percent of total production which was 2,268 AF.

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
01/2015	259
* Taken from the field “Water Losses” (a combination of apparent losses and real losses) from the AWWA worksheet.	
NOTES:	

4.4 Estimating Future Water Savings

Law

(A) If available, and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in Subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections. (ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact (10631(e)).

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook)	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc.... utilized in demand projections are found.	
Are Lower Income Residential Demands Included In Projections?	Yes
NOTES:	

RCSD will not include estimates of Future Water Savings.

4.5 Water Use for Lower Income Households

Law

An urban water retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

Page27 – Water suppliers may revise population estimates for baseline years between 2000 and 2010 when 2010 census information becomes available. DWR will examine discrepancy between the actual population estimate and the DOF's projections for 2010; if significant discrepancies are discovered, DWR may require some or all suppliers to update their baseline population estimates (10608.20(g)).

Section 10631.1 of the CWC requires 2015 UWMPs to include the projected water use for lower income single-family and multi-family residential households as identified in the housing element of any city, county, or city and county in the service area of the water purveyor. Lower income is established by the state as 80 percent of area median income.

The projections are meant to assist water purveyors in complying with the requirements of the Government Code Section 65589.7, which requires water purveyors to “grant a priority for the provision of water and sewer services to proposed developments that include housing units affordable to lower income households.”

The estimated low income projected water demands for RCSD are based on 37 percent of demand for the Antelope Valley Area from the Housing Needs Assessment Populations and Household Income Maps that identified the projected low income housing units for the region.

4.6 Climate Change

In the 2013 edition of DWR's Water Plan, an assessment of the impacts of global warming on the State's water supply was conducted using a series of computer models that were based on decades of scientific research. Model results indicate that increased temperature, reduction in Sierra Nevada Mountains snow depth, early snow melt, and a rise in sea level will occur. These changing hydrological conditions will likely affect future planning efforts that are typically based on historic conditions. Potential impacts from climate change may include:

- Hydrologic conditions, variability, and extremes that are different than what current water systems were designed to manage.
- Changes in climate occurring too rapidly to allow sufficient time and information for managers to respond appropriately.
- Special efforts or plans may be required to protect against surprises and uncertainties.

As such, DWR will continue to provide updated results from these models as further research is conducted.

4.6.1 Weather Effects on Historical Water Usage

Historically, both agricultural and urban usage has increased in dry weather. However, in recent years, conservation efforts have limited increases in demand due to higher temperatures and often have resulted in reduced overall demand. Further effects due to global warming may also begin to influence future water usage and planning efforts as previously discussed.

4.6.2 Conservation Effects on Water Usage

In recent years, water conservation has become an increasingly important factor in water supply planning in California. The California plumbing code has instituted requirements for new construction that mandate the installation of ultra-low-flow toilets and low-flow showerheads. RCSD has participated in water conservation measures that include public information and education programs and the implementation of water efficient operations and maintenance practices. As a retail customer of AVEK, RCSD has also implemented DMMs as described in Section 9. In November 2009, SB X7-7 (Senate Bill Seven of the Senate's Seventh Extraordinary Session of 2009) was enacted requiring all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. To achieve the desired increase in water use efficiency, the State established an interim goal of a 10 percent reduction in per capita water use by December 31, 2015. Further discussion on SB X7-7 is found in Section 5.

Section 5.0. SB X7-7 Baselines and Targets

5.1 Updating Calculations from 2010 UWMP

Law

An urban water retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

Page27 – Water suppliers may revise population estimates for baseline years between 2000 and 2010 when 2010 census information becomes available. DWR will examine discrepancy between the actual population estimate and the DOF's projections for 2010; if significant discrepancies are discovered, DWR may require some or all suppliers to update their baseline population estimates (10608.20(g)).

5.1.1 Update of Target Method

The 2010 UWMP used Target Method 1 and for consistency, this report also uses Target Method 1 that establishes a target that is 20 percent of the baseline.

5.1.2 Required Use of 2010 U.S. Census Data

The 2010 UWMP did not include the 2010 Census data. RCSD has adjusted the population values used in determining the baseline daily per capita water use using the DWR Population Tool. This provides a better estimate because it utilizes the actual RCSD service area, not just a percentage of the Rosamond Community area and the 2010 Census data as well as persons per connection calculations.

5.1.3 SB X7-7 Verification Form (Appendix E)

The calculations were all done with the new data and are in the SB X7-7 Verification Form (Appendix E).

5.2 Baseline Periods

5.2.1 Determination of the 10-15 Year Baseline Period (Baseline GPCD)

RCSD currently uses no recycled water, well below 10 percent; therefore a 10-year base period is used. RCSD used the data for years 2001-2010.

5.2.2 Determination of the 5-Year Baseline Period (Target Confirmation)

The 5-year baseline period is used to confirm the target. This period is 2003-2007.

5.3 Service Area Population

RCSD has developed its baseline target for its water service area in place of using the target for the regional area.

5.3.1 Population Methodology (DWR Population Tool)

The community boundaries are not contiguous with the water service area. The DWR Population Tool uses kml file maps to account for these differences. The population estimates for the baseline years for the analysis were developed utilizing the DWR Population Tool. This method utilizes the 2010 Census data and calculates the person per single-family connection and per multi-family connection then projects the population out based on the number of connections during the selected base period.

The 2010 UWMP used the DWR guidebook and the 2010 census data was not available. The population estimates were much larger than the estimates produced by the DWR Population Tool. Minor adjustments to the 2015 interim target and 2020 target were made.

5.4 Gross Water Use

The gross water use for the area has been well documented by RCSD and AVEK. The 2010 values were confirmed. The water used between 2001 and 2010 varied from 3,024 AF to 3,696 AF with a trend of increasing from 2001 to 2007 and decreasing from 2008 to 2010. The 2015 usage was 2,268 AF which is a significant reduction for the last 5 years.

Gross water use reduction can be attributed to both the conservation efforts of RCSD and the prolonged drought. RCSD will continue to verify that the usage is reflective of conservation rather than solely impacts from the sustained drought.

5.4.1 Gross Water Tables

See the SB X7-7 Verification Form (Appendix E) for the tables related to gross water calculations.

5.5 Baseline Daily Per Capita Water Use

Because of the adjustment to the population using DWR's Population Tool, the baseline daily per capita water use (gallons per capita per day - GPCD) was recalculated. Using the same year periods as the 2010 UWMP, the 10-year baseline was 199 GPCD and the 5-year baseline was 202 GPCD. The 2010 UWMP 10- and 5-year baselines were 177 GPCD based on the previous population estimates. This represents an increase in the GPCD use estimate for the RCSD service area.

Using Method 1, the 2020 target is 20 percent of the 10-year baseline period or 159 GPCD.

5.6 2015 and 2020 Targets

5.6.1 Apply Target Method 1

RCSD used Target Method 1 which calculated the 2020 Target as 20 percent of the Baseline GPCD.

5.6.2 5-Year Baseline - 2020 Confirmation

The 5-year baseline of 202 GPCD confirms the 2020 target by the 10-year method.

5.6.3 Calculate the 2015 Interim Urban Water Use Target

The interim target is calculated as 179 GPCD.

5.6.4 Baselines and Target Summary

As shown in Table 5-1, the adjusted targets for 2015 and 2020 are 179 GPCD and 159 GPCD, respectively.

Table 5-1: Baselines and Targets Summary					
<i>Retail Agency or Regional Alliance Only</i>					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	2001	2010	199	179	159
5 Year	2003	2007	202		
*All values are in Gallons per Capita per Day (GPCD)					
NOTES:					

5.7 2015 Compliance Daily per Capita Water Use (GPCD)

The actual usage in 2015 is 112 GPCD. This is well below the 2010 interim target of 160 GPCD and the adjusted 2015 target of 179 GPCD. In addition, the 2015 usage is below the 2020 target of 159 GPCD.

Table 5-2: 2015 Compliance
Retail Agency or Regional Alliance Only

Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD <i>From Methodology 8</i>					2015 GPCD* <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*		
112	179	0	0	0	0	112	112	Yes
<i>*All values are in Gallons per Capita per Day (GPCD)</i>								
NOTES:								

5.7.1 Meeting the 2015 Target

RCSD achieved and exceeded its reduction target for 2015.

5.7.2 2015 Adjustments to 2015 Gross Water Use

No adjustments were made to gross water use.

5.8 Regional Alliance

RCSD is a member-agency of AVEK and is a part of regional planning for the Antelope Valley. RCSD participated in the 2007 AVIRWMP and the 2013 Update.

Section 6.0. System Supplies

This section provides a detailed discussion of the existing and planned water supplies available to RCSD. RCSD anticipates receiving water from local groundwater, imported water, and other sources such as recycled water. The projected supply by source is presented over the next 25 years, in 5-year increments.

6.1 Purchased or Imported Water

The only imported or purchased water supply for RCSD is SWP water purchased through the AVEK. Water imported to the Antelope Valley through the SWP first became available in 1978.

See Table 6-8 for a summary of the historic and current imported water volumes to RCSD.

Each year by October 1, the SWP contractors provide DWR with a request for water delivery up to their full “Table A” Amount. Actual delivery from DWR may vary from the request due to variances in supply availability resulting from hydrology, storage availability, regulatory or operating constraints, etc. When supply is limited, a reduction of the requested amount is determined per the water allocation rules governing the SWP.

Except for fluctuations in the availability of SWP water caused by drought-related or regulatory supply interruptions within the state, sufficient infrastructure exists to allow RCSD to use SWP water to meet all of the water demands in its customers, including peak summer demand periods.

SWP water is treated by four AVEK facilities prior to delivery to the water purveyors. The 14 million gallons per day (mgd) Rosamond Water Treatment Plant was established to support the needs of consumers in southeastern Kern County, an area that includes Rosamond, Mojave, California City, Edwards Air Force Base and Boron. The Rosamond Water Treatment Plant is capable of providing water for 60,000 consumers.

6.2 Groundwater

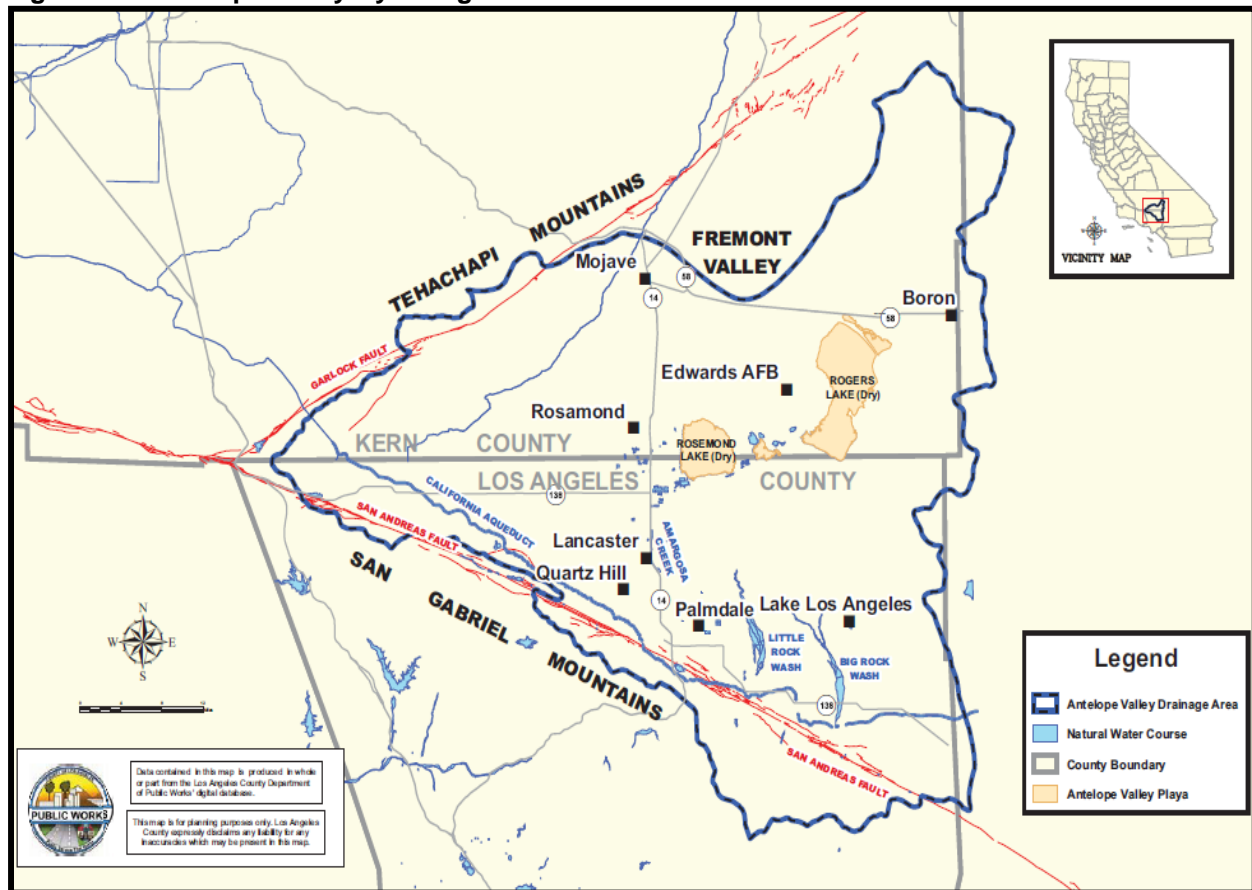
Groundwater makes up approximately 54 percent of the total water supply for the entire Antelope Valley region and comes entirely from the Antelope Valley Groundwater Basin. On December 23, 2015, a settlement was signed by Judge Komar and recorded with the court making the Antelope Valley Groundwater Basin an adjudicated basin. The Antelope Valley Groundwater Cases Judgment and Physical Solution (“Judgment”) established an Allocation of Rights of the Native Safe Yield. RCSD was allocated 404.42 AFY of Production Rights before paying a Replacement Water Assessment. RCSD purchased an additional 150 AFY of Production Rights for a total of 554.42 AFY. Other groundwater production may be acquired through Federal Reserve Water Rights, Carryover, Return Flows, and Transferred Production Rights. A summary of the historic pumping by RCSD provided in Table 6-1.

Table 6-1 Retail: Groundwater Volume Pumped						
□	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type	Location or Basin Name	2011	2012	2013	2014	2015
Alluvial Basin	Antelope Valley Basin	2,536	2,988	2,878	2,790	2,232
TOTAL		2,536	2,988	2,878	2,790	2,232
NOTES:						

6.2.1 Basin Description

The Antelope Valley Groundwater Basin contains two primary aquifers: the upper and lower aquifer. The upper aquifer is an unconfined aquifer. Separated from the principal aquifer by clay layers, the deep aquifer is generally considered to be confined. In general, the principal aquifer is thickest in the southern portion of the Valley near the San Gabriel Mountains, while the deep aquifer is thickest in the vicinity of the dry lakes on Edwards Air Force Base. The Antelope Valley Groundwater Basin is divided into twelve subunits. The subunits are Finger Buttes, West Antelope, Neenach, Willow Springs, Gloster, Chaffee, Oak Creek, Pearland, Buttes, Lancaster, North Muroc, and Peerless. The groundwater basin is principally recharged by deep percolation of precipitation and runoff from the surrounding mountains and hills. Figure 6-1 depicts the Antelope Valley groundwater basin subunit boundaries.

Figure 6-1: Antelope Valley Hydrologic Features



6.2.2 Groundwater Management

Groundwater extractions between 1926 and 1972 resulted in the overdraft of the aquifer that caused groundwater levels to drop 200 to 300 feet or an average of four to 6 feet per year. The importation of the SWP supply has since stabilized groundwater levels in some areas of the Antelope Valley. According to RCSD records, the water table continued to decline an average of 2 to 3 feet per year until 1995. With the increased usage of surface water sources and decreasing deep well usage, the water table has been rising an average of 2 to 3 feet per year.

RCSD has been actively participating in the WSWB. The WSWB aims to enhance water reliability and flexibility through a water bank that is both cost-effective and environmentally sound. The WSWB is helping to reduce the rate of aquifer overdraft and encourages conjunctive use not only by retailers within the Antelope Valley region but throughout all of southern California. The WSWB helps to implement a water market/bank as a mechanism to make water available to meet RCSD’s existing and future demands. The groundwater bank provides up to 500,000 AF of groundwater storage. The annual intake and return capacities are 10,000 AFY.

RCSD currently has three wells for a total maximum pumping capacity of 2,825 gallons per minute (gpm). RCSD relies on groundwater produced by two of these wells and the third is maintained as a standby/emergency source.

6.3 Surface Water

RCSD does not use any local surface water for their water supply.

6.4 Stormwater

The Judgment prohibits the diversion and capture of stormwater within the basin watershed.

6.5 Wastewater and Recycled Water

The Rosamond Wastewater Treatment Plant (RWWTP) was created and has been in operation serving the RCSD since 1966 collecting and treating wastewater from its customers in the Rosamond area (see Table 6-2). The RWWTP currently produces secondary treated water.

In 2008, taking into consideration assumptions of population growth, reliability and cost of SWP water, and a huge increase of consumers for tertiary water, the RCSD developed a plan and build a tertiary treatment plant capable of producing 0.35 mgd of tertiary treated recycled water. The RWWTP can be expanded to produce 0.7 mgd of tertiary treated recycled water.

Unforeseen events occurred after 2008: the collapse of the economy and building of houses, the worst California drought in recorded history, and the ability of AVEK to water bank 1 million AF of water for reliability. The lack of demand, the cost of infrastructure, and the cost of producing tertiary water at \$2,880 per AF while potable SWP costs \$525 per AF, has caused the RCSD to mothball the tertiary plant until the production of tertiary water becomes economically viable, or the State mandates its production.

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015

<input type="checkbox"/>	There is no wastewater collection system. The supplier will not complete the table below.					
	Percentage of 2015 service area covered by wastewater collection system <i>(optional)</i>					
	Percentage of 2015 service area population covered by wastewater collection system <i>(optional)</i>					
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?	Is WWTP Operation Contracted to a Third Party? <i>(optional)</i>
RCSD	Estimated	1,217	RCSD	RWWTP	Yes	No
Total Wastewater Collected from Service Area in 2015:		1,217				
<p>NOTES: Estimated volume of 60% potable water delivered.</p>						

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015

No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.										
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number <i>(optional)</i>	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
RWWTP				Other		Secondary, Undisinfected	1,120	1,120	0	0
Total							1,120	1,120	0	0
NOTES: Evaporation ponds										

Table 4-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

<input type="checkbox"/>	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.							
Name of Agency Producing (Treating) the Recycled Water:		RCSD						
Name of Agency Operating the Recycled Water Distribution System:		RCSD						
Supplemental Water Added in 2015		0						
Source of 2015 Supplemental Water		N/A						
Beneficial Use Type	General Description of 2015 Uses	Level of Treatment	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation								
Landscape irrigation (excludes golf courses)		Secondary, Undisinfected	0	0	0	0	0	0
Golf course irrigation								
Commercial use								
Industrial use								
Geothermal and other energy production								
Seawater intrusion barrier								
Recreational impoundment								
Wetlands or wildlife habitat								
Groundwater recharge (IPR)*								
Surface water augmentation (IPR)*								
Direct potable reuse								
Other (Provide General Description)								
		Total:	0	0	0	0	0	0
<i>*IPR - Indirect Potable Reuse</i>								
NOTES:								

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual

<input type="checkbox"/>	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.		
Use Type		2010 Projection for 2015	2015 Actual Use
Agricultural irrigation			
Landscape irrigation (excludes golf courses)			
Golf course irrigation			
Commercial use			
Industrial use		1,000	0
Geothermal and other energy production			
Seawater intrusion barrier			
Recreational impoundment			
Wetlands or wildlife habitat			
Groundwater recharge (IPR)			
Surface water augmentation (IPR)			
Direct potable reuse			
Other	<i>Type of Use</i>		
Total		1,000	0
NOTES: Projected project was canceled.			

Table 6-6 Retail: Methods to Expand Future Recycled Water Use

<input type="checkbox"/>	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Total			0
NOTES:			

6.6 Desalinated Water Opportunities

The UWMPA also requires water agencies to consider options for desalination. RCSD is located a considerable distance from the Pacific Ocean so constructing a transmission main to move either sea water or desalinated water directly to the Antelope Valley is cost prohibitive. Under such an arrangement, RCSD could use funds collected from the developer fee to contribute financially to the construction of a desalination facility, and in turn, the partnering agency would transfer a portion of their SWP water rights to RCSD.

6.7 Exchanges or Transfers

RCSD is continually evaluating various transfer and exchange opportunities as they arise. There are no viable opportunities for RCSD.

6.8 Future Water Projects

Based on projected growth from population and land use build-out, supply needs for the entire RCSD service area are expected to increase approximately 8 percent from 2015 to 2040. The main driver for these needs is presumed to be single family residential development. However, projected future needs, particularly those in the near-term, will continue to be monitored and adjusted in response to changes in the rate of housing development as well as major new commercial or industrial customers such as solar and other power facilities.

The Antelope Valley, as a whole, will require new projects that provide additional supply in order to meet the projected demand. No specific projects have been selected. RCSD is evaluating projects that would help to offset demand on imported water supplies and other projects that will contribute to a reliable source of supply. Future water supply project plans will focus on the following:

- Expand conservation efforts.
- Require developers to pay for the purchase of groundwater rights.
- Acquire additional groundwater rights following implementation of adjudication.
- Create a combination of local surface spreading facilities to percolate untreated SWP water.
- Add additional groundwater extraction capacity to recover stored water.

6.8.1 Acquisition of New Water Supply

Besides the Production Rights allocated to RCSD in the Judgment and purchases of additional Production Rights—554.42 AFY—additional water supply can be produced from SWP water, Stored Water, Return Flows, Federal Water Rights, Carry Over Water, Replenishment Water, and Transferred groundwater rights in the Judgment. RCSD has recently acquired an additional

150 AFY in Transferred Rights. DMMs are addressed in Section 9 and recycled water is addressed in Section 6.5.

Table 6-7 Retail Expected Future Water Supply Projects or Programs

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
<input checked="" type="checkbox"/>	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
<input type="checkbox"/>	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type <i>Drop Down List</i>	Expected Increase in Water Supply to Agency <i>This may be a range</i>
	<i>Drop Down List (y/n)</i>	<i>If Yes, Agency Name</i>				
<i>Add additional rows as needed</i>						
RCSD						
NOTES:						

6.9 Summary of Existing and Planned Sources of Water

Table 6-8 provides a summary of existing water supply sources from RCSD. Table 6-9 shows the projected supply provided during an average water year over a 25-year planning period, in 5-year increments.

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
		Actual Volume	Water Quality	Total Right or Safe Yield (optional)
Purchased or Imported Water	AVEK	1	Drinking Water	
Groundwater		2,232	Drinking Water	
Total		2,233		0
NOTES:				

Table 6-9 Retail: Water Supplies — Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply <i>Report To the Extent Practicable</i>									
		2020		2025		2030		2035		2040 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Groundwater		1,693		554		554		554		554	
Recycled Water		0		0		0		0		0	
Purchased or Imported Water		611		1,786		1,822		1,858		1,894	
Total		2,304	0	2,340	0	2,376	0	2,412	0	2,448	0

NOTES:

1. As per adjudication, groundwater production will be reduced over 5 years starting in 2018.
2. Assumes plant has capability to treat all flow, distribution system in in place, and customers are available for the recycled water.

Section 7.0. Water Supply Reliability Assessment

This section provides a discussion of the reliability of the water supply within RCSD. A comparison between the water supply and demand for an average water year, single-dry water year, and multi-dry water years is also provided. The adjudication became effective December 23, 2015. The implementation of the adjudication has a 7-year ramp down period, after which time RCSD's allocation will be 554.42 AFY. Therefore, RCSD understands that an annual review of reliability planning and clear management of the groundwater supplies will be necessary. All tables in Section 7 reflect the groundwater pumping as prescribed by the adjudication.

7.1 Constraints on Water Sources

7.1.1 Reliability

Reliability is “the degree to which one can count on a given amount of water being delivered to a specific place at a specific time.” Reliability criteria define the maximum acceptable level of supply shortage an agency is willing to sustain during a drought. For this study, a reliability criterion has been used to evaluate water supply plans. This criterion requires water supply to be sufficient to meet projected demands 90 percent of the time. In the remaining 10 percent of the time, it is assumed that the maximum allowable supply shortage will be 10 percent of the demand. This level is chosen because a 10 percent water demand reduction is anticipated to be attainable by voluntary conservation. Typically, when a shortage occurs, water customers increase their awareness of water usage and voluntarily reduce water demands, avoiding water rationing.

Table 7-1 Retail: Basis of Water Year Data			
Year Type	Base Year	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP.
		<input type="checkbox"/>	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available	% of Average Supply
Average Year		3,460	100%
Single-Dry Year		2,872	83%
Multiple-Dry Years 1st Year		3,149	91%
Multiple-Dry Years 2nd Year		3,149	91%
Multiple-Dry Years 3rd Year		3,149	91%
Multiple-Dry Years 4th Year <i>Optional</i>		3,149	91%
Multiple-Dry Years 5th Year <i>Optional</i>		3,149	91%
Multiple-Dry Years 6th Year <i>Optional</i>		3,149	91%
Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
NOTES:			

7.1.2 Water Quality Impacts on Availability of Supply

Imported water quality and groundwater quality have been addressed in Sections 2.3 and 3.4 of this Plan, respectively. Both supplies have water quality that is expected to remain within acceptable limits for the foreseeable future. Any change in water supply is not dependent on water quality, but on the availability of SWP supplies. Therefore, there are no water quality impacts projected.

The most recent consumer confidence report is included in Appendix R to show the water quality of source waters.

7.2 Reliability by Type of Year

7.2.1 Average Water Year Assessment

Table 7-1 provides a summary of the average year reliability for RCSD. As discussed in Section 2, the overall delivery of SWP water was estimated to be 60 percent of AVEK’s “Table A” amount. Deliveries to RCSD (2 percent) were determined based on percent population for the given year. This assumes the availability of groundwater as per the adjudication.

RCSD will need to implement planned water supplies by 2040 in order to meet emergency demand. Demand estimates are based on the land use and population projection developed in Section 3.4.

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals (autofill from Table 6-9)	2,304	2,340	2,376	2,412	2,448
Demand totals (autofill from Table 4-3)	2,304	2,340	2,376	2,412	2,448
Difference	0	0	0	0	0
NOTES:					

7.2.2 Single Dry Year Water Assessment

Table 7-3 provides a summary of the single dry-year reliability for RCSD. Overall SWP water delivery was estimated to be available at 7 to 11 percent (as determined by the Reliability Report) of AVEK’s “Table A” Amount available to its retail customers. Demand estimates are based on the land use and population projection developed in Section 4.

As shown by the comparison, RCSD will have sufficient supply to meet the increasing demand through 2040 assuming the availability of groundwater production of 554.42 AFY, Replenishment Water, Return Flows, Federal Reserve Rights, Transferred Production Rights, and the ability of AVEK to deliver SWP supplies. However, historically it has been the practice of RCSD to conserve groundwater use during average years for additional pumping and availability in dry years to make up for the losses in SWP. Tables 7-1 through 7-7 reflect this additional groundwater pumping as well as the new planned water supplies as identified and discussed in Section 2 and 3, respectively.

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	2,304	2,340	2,376	2,412	2,448
Demand totals	2,304	2,340	2,376	2,412	2,448
Difference	0	0	0	0	0
NOTES:					

7.2.3 Multi-Dry Year Assessment

Tables 7-4 provides a summary of the multiple-dry year reliability for RCSD. For all cases, overall delivery of SWP water was estimated to be available at 34 to 36 percent (as determined by the Reliability Report) of AVEK’s “Table A” Amount available to retail agencies. Demand estimates are based on the land use and population projection developed in Section 4.

As shown by the comparison, RCSD will have sufficient supply to the increasing demand through 2040 with the implementation of the new planned water supplies, including the availability of groundwater as reduced by the adjudication.

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040(Opt)
1st year	Supply totals	2,304	2,340	2,376	2,412	2,448
	Demand totals	2,304	2,340	2,376	2,412	2,448
	Difference	0	0	0	0	0
2nd year	Supply totals	2,304	2,340	2,376	2,412	2,448
	Demand totals	2,304	2,340	2,376	2,412	2,448
	Difference	0	0	0	0	0
3rd year	Supply totals	2,304	2,340	2,376	2,412	2,448
	Demand totals	2,304	2,340	2,376	2,412	2,448
	Difference	0	0	0	0	0
4th year <i>(optional)</i>	Supply totals	2,304	2,340	2,376	2,412	2,448
	Demand totals	2,304	2,340	2,376	2,412	2,448
	Difference	0	0	0	0	0
5th year <i>(optional)</i>	Supply totals	2,304	2,340	2,376	2,412	2,448
	Demand totals	2,304	2,340	2,376	2,412	2,448
	Difference	0	0	0	0	0
6th year <i>(optional)</i>	Supply totals	2,304	2,340	2,376	2,412	2,448
	Demand totals	2,304	2,340	2,376	2,412	2,448
	Difference	0	0	0	0	0
NOTES:						

7.3 Supply and Demand Assessment

RCSD's supply has been consistent. The Judgement has reduced their ability to Produce Groundwater above their Production Rights; Transferred Rights, Carry Over, Return Flows,

Stored Water, and Federal Water; without purchasing Replenishment Water. The price of Replenishment water has not been set by the Watermaster but is estimated to be equal to SWP water. RCSD plans to take the costs of all types of water into consideration and purchase, or produce, the water that provides the best economic value to the RCSD before using SWP or Replenishment water. For the purposes of Tables 7-2 through 7-4, SWP is used to supply all water above Production Rights. When demand increases in the future, SWP and Replenishment water is available.

7.4 Regional Supply Reliability

RCSD is a member-agency of AVEK and has connections to receive SWP water. RCSD has used SWP water at varying levels over the years. While SWP water supply can be mercurial due to Table A annual allocations, SWP, or Replenishment Water, will increase when all other types of water are not available as discussed in Section 7.3. If all other types of water become unavailable, including but not limited to SWP water, the RCSD can Produce Groundwater as Replenishment Water at an increased cost.

Section 8.0. Water Shortage Contingency Planning

This water shortage contingency analysis is based on water shortages that arise not only from drought, but shortages resulting from earthquakes, fires, system failures, and water quality contamination as well. Recent drought-related water management experiences for water agencies in California have revealed the complexity of coping with a water supply shortage. These experiences are well documented and ready for implementation in the future by most agencies. Various water shortage scenarios may require similar drought-related actions, but may involve different complications that must be taken into account to address the shortage.

8.1 Stages of Action

RCSD has adopted Ordinance 2016-2 (Water Conservation Ordinance) as its Water Shortage Contingency Plan (WSCP) for its service area. This plan is described in more detail below and a copy is provided in Appendix Q.

RCSD has adopted a five-stage WSCP that is summarized in Table 8-1. The stages were designed to provide a minimum of 50 percent of normal supply during a water shortage event. The table provides a description of the triggers for the rationing stages.

Table 8-1 Retail: Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction ¹ <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
2	10-15%	Triggered by 85 to 90% of normal supply, insufficient supply to provide 80% for next 2 years, or Loss of 10% from contamination.
3	15-20%	Triggered by 80 to 85% of normal supply, insufficient supply to provide 75% for next 2 years, 1st year excess groundwater pumped, or loss of 20% from contamination.
4	20-40%	Triggered by 60 to 80% of normal supply, insufficient supply to provide 65% for next 2 years, 2nd year excess groundwater pumped, or loss of 30% from contamination.
5	>40%	Triggered by less than 60% of normal supply, insufficient supply to provide 50% for next 2 years, no excess groundwater available, or disaster loss.
¹ One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		
NOTES:		

8.2 Prohibitions on End Uses

The Water Conservation Ordinance adopted by RCSD outlines the mandatory prohibition on water wasting and describes the excessive-use penalties enforced by both districts. A copy of the ordinance is provided in Appendix Q. Table 8-2 provides a summary of the consumption methods and the stages in which they take effect.

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement?
1	None.	Normal supply.	
2	Flow restriction	Limited time per day and time of day use.	
2	Use prohibitions	Fire hydrants for firefighting only. Restriction for car washes.	
3	Flow restriction	Limited time per day and time of day use.	
3	Use prohibitions	Fire hydrants for firefighting only. Restriction for car washes. No refilling of water features.	
4	Use prohibitions	Fire hydrants for firefighting only. Restriction for car washes. No refilling of water features.	
5	Use prohibitions	Fire hydrants for firefighting only. Restriction for car washes. No refilling of water features.	
NOTES:			

8.2.1 Landscape Irrigation

The District's Water Conservation Ordinance provides the restrictions for landscape irrigation for residential and non-residential customers. The installation of new turf is prohibited with exceptions for required usable open space or by application to the District for exemption.

The Water Conservation Ordinance is included in Appendix Q. Section 6 provides full details of landscape restrictions.

8.2.2 Commercial, Industrial, and Institutional (CII)

Many of the commercial and institutional prohibitions are included in RCSD's ordinance. These are specifically addressed based on the stages of conservation in the Water Conservation Ordinance.

8.2.3 Water Features and Swimming Pools

There are some small water features and swimming pools in RCSD. Restrictions for water features are addressed in the Water Conservation Ordinance and vary based on the stages of conservation.

8.2.4 Defining Water Features

Water features include the following:

1. Pools and spas
2. Ponds or lakes
3. Streams
4. Artificial ponds or lakes

8.2.5 Other

Customers are required to repair leaks, breaks and malfunctions in a timely manner. The time limits vary for each stage of the ordinance.

8.3 Penalties, Charges, Other Enforcement of Prohibitions

RCSD's enforcement of the wasteful use of water is through fines incorporated in the Water Conservation Ordinance and not through increases in the rate structure.

8.4 Consumption Reduction Methods

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>		
	Expand Public Information Campaign	
	Improve Customer Billing	
	Increase Frequency of Meter Reading	
	Offer Water Use Surveys	
	Provide Rebates on Plumbing Fixtures and Devices	
	Provide Rebates for Landscape Irrigation Efficiency	
	Provide Rebates for Turf Replacement	
	Decrease Line Flushing	
	Reduce System Water Loss	
	Increase Water Waste Patrols	
	Moratorium or Net Zero Demand Increase on New Connections	
	Implement or Modify Drought Rate Structure or Surcharge	
NOTES:		

8.5 Determining Water Shortage Reductions

RCSD will rely on meters to record the production and consumption of water and the effectiveness of the reduction methods.

8.6 Revenue and Expenditure Impacts

RCSD experienced some reduction of revenue as users reduce consumption due to conservation demands. Currently there will be a deminimus effect on operation and administration revenues since the new rates put in place capture those expenses within the base rate and not the commodity rate. All new connection fees are placed into a reserve for future infrastructure as water demands increase due to growth. The District also partners with the region to increase outreach to customers, offsetting the individual expenditure amount.

8.7 Resolution or Ordinance

See Ordinance No. 2016-2, Water Conservation Ordinance. Water Conservation Ordinance is included in Appendix Q.

8.8 Catastrophic Supply Interruption

Coordination among RCSD and other purveyors within the Antelope Valley is essential when planning for a loss of supply. This is especially true since several water purveyors share the same water sources and will be equally affected when a loss occurs. It is also essential for planning to be coordinated with AVEK, the wholesale water supplier, since AVEK will need to take similar actions for each water purveyor in the time of need.

8.8.1 Drought Conditions

Being located within an arid region of southern California, the Antelope Valley is highly susceptible to drought conditions. Thus, it is important for the water purveyors to have a plan in place to ease the impacts to the water supply during times of drought. The DMMs discussed in Section 9 will play an essential role in limiting water use during drought times, but further measures are often incorporated in a WSCP.

8.8.2 Earthquakes or Other Natural Disaster

The Antelope Valley Groundwater Basin Judgment allows for over-pumping of the basin in the event of emergencies. The requirement is that following the emergency, the producer must purchase replenishment water supplies.

8.8.3 SWP Emergency Outage Scenarios

The Antelope Valley Groundwater Basin Judgment allows for over-pumping of the basin in the event of emergencies. The requirement is that following the emergency, the producer must purchase replenishment water supplies.

8.8.4 Power Outages

In the event of a power outage, the water purveyors would follow their established Emergency Response Procedures (ERPs). ERPs for a power outage include ensuring back-up power supply for all water supply facilities to continue supplying water to customers, communicating with the power company, activating emergency connections with adjacent water systems, continuing water quality monitoring, and issuing boil water advisories as necessary.

8.8.5 Contamination

Contamination of water supply can result from a number of different events including a reduction in water supply, water main break, cross-connection condition, water source pollution

or covert action. Water supplies within the Antelope Valley are generally of good quality and no foreseeable permanent contamination issues are anticipated. In the event of a toxic spill or major contamination, the water purveyors would follow their ERPs to isolate the problem and reduce the impact to the water supply. Once the problem has been isolated, the contamination would be cleaned up using the outlined chlorination or other necessary procedures and the water supply returned to service as soon as possible. In the meantime, emergency storage or alternative supply would be used to meet demand. Implementation of additional DMMs could also be utilized if the outage is anticipated to be of longer consequence.

8.8.6 Reduction Measuring Mechanism

To monitor the reduction in water use during a water shortage stage, daily production figures are recorded. During Stage 1 and 2, weekly production will be compared to the target weekly production. These weekly reports will be forwarded to the General Manager and Water Shortage Response Team. If goals are not met, the Board of Directors is notified so corrective action can be taken. During Stage 3 and 4, the procedures are the same with the General Manager receiving the daily reports as well as the weekly reports.

8.9 Minimum Supply Next 3 Years

As such, RCSD’s three-year minimum water supply is provided in Table 8-4. The average normal water year was set as 2010. Three-year minimum supply was determined to occur for the base years. As shown, RCSD currently has a sufficient water supply portfolio to meet their current demands over the next 3 years given a worst-case water supply scenario.

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	4,585	4,585	4,089
NOTES: This includes adjudication ramp down and imported water from AVEK.			

Section 9.0. Demand Management Measures

This section will discuss the existing and planned DMMs implemented by RCSD.

9.1 Water Demand Management Measures

As outlined below, the UWMPA requires water suppliers implement “demand management” in their UWMP through a five-step process. Demand management, as applied to water conservation, refers to the use of measures, practices, or incentives implemented by water utilities to permanently reduce the level of demand or change the pattern of demand. Per CWC §10631(f) and (g), UWMPs must include:

1. A description of each water demand management measure being implemented or scheduled for implementation:
 - DMM 1. Water survey programs for single-family residential and multi-family residential customers.
 - DMM 2. Residential plumbing retrofit.
 - DMM 3. System water audits, lead detection, and repair.
 - DMM 4. Metering with commodity rates for all new connections and retrofit of existing connections.
 - DMM 5. Large landscape conservation programs and incentives.
 - DMM 6. High-efficiency washing machine rebate programs.
 - DMM 7. Public information programs.
 - DMM 8. School education programs.
 - DMM 9. Conservation programs for commercial, industrial, and institutional accounts.
 - DMM 10. Wholesale agency programs.
 - DMM 11. Conservation pricing.
 - DMM 12. Water conservation coordinator.
 - DMM 13. Water waste prohibition.
 - DMM 14. Residential ultra-low-flush toilet replacement programs.
2. A schedule of implementation for all water DMMs proposed or described in the water supplier’s UWMP.
3. A description of the methods, if any, the water supplier will use to evaluate the effectiveness of the DMMs implemented or described under the UWMP.
4. An estimate, if available, of existing conservation savings on water use within the water supplier’s service area and the effect of the savings on the supplier’s ability to further reduce demand.
5. An evaluation of each DMM not being implemented or scheduled for implementation, which shall include cost-benefit, funding availability, and legal authority analyses.

The UWMPA allows one of two ways for water utilities to provide DMM information to meet the respective requirements of CWC §10631(f) and (g):

Signatory. A water supplier who is a member of the California Urban Water Conservation Council (CUWCC)¹ and signatory of the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) may submit their Best Management Practice (BMP) Activity Reports (Annual Reports). Signatories pledge to develop and implement the 14 BMPs that are intended to reduce long-term urban water demands. These BMPs are functionally equivalent to the DMMs in CWC §10631(f)(1).

It should be noted that exemptions are available for BMPs that cannot be implemented; certain criteria must be met regarding cost-effectiveness, budgetary constraints, or legal issues that prohibit the implementation of any BMP for a signatory.

Non-signatory. A water supplier who is not a member of CUWCC, or who is a member of CUWCC, but chooses not to submit the Annual Reports, must discuss all 14 DMMs, along with any additional measures the supplier is implementing or has scheduled for implementation in their UWMP submittal.

9.2 Implementation Levels of DMM's/BMP's

The DMMs that were implemented, or scheduled to be implemented, by RCSD are outlined in the respective sections below. Included in the discussions are the five descriptive “demand management” elements as per the UWMPA.

RCSD is not a signatory to the CUWCC MOU and is not a member of CUWCC, however RCSD is dedicated to expeditiously implementing as many reasonable water conservation measures in urban areas and to establish appropriate assumptions for use in calculating estimates of reliable future water conservation savings.

RCSD regularly evaluates the implementation of their conservation programs on an annual basis and implements programs accordingly as budgets allow. A brief description of RCSD's activities with respect to each DMM follows.

¹ CUWCC, a non-governmental agency, was formed to increase water use efficiency statewide through partnerships among urban water agencies, public interest organizations, and private entities. CUWCC's goal is to integrate urban water conservation BMPs into the planning and management of California's water resources.

9.2.1 DMM 1: Water Survey Programs for Single-Family and Multi-Family Residential

Customers

RCSD offered free residential water use surveys to single-family and multi-family customers starting in 2006. The surveys focused on the top 20 percent of water users in each sector, but were offered to any customer by request. The top 20 percent of users, as determined from RCSD's existing database of billing records, received a letter offering the free survey. If the users remain on the top 20 percent list the following year, up to three letters were mailed offering an additional incentive to conduct the survey.

RCSD also has a landscape ordinance in place which pertains to new and existing single family homes, and an active landscape conservation program. RCSD has a Water Efficiency Landscape (WEL)/fire-escape demonstration garden and works with Kern County and others to promote efficient landscaping practices.

Implementation Schedule

Program Start: January 2006

Program Status: Ongoing.

Budgetary Schedule

\$3,000

9.2.2 DMM 2: Residential Plumbing Retrofit

Under this program, water-conserving devices such as high-quality low-flow showerheads, toilet-displacement devices, toilet flappers, and faucet aerators were distributed to customers.

The plumbing retrofit DMM was implemented in 2000. Through National Association of Clean Water Agencies (NACWA), RCSD participated in the distribution of retrofit kits during Water Awareness Month. Residential plumbing retrofit programs included distributing retrofit kits that may include high quality low-flow showerhead, faucet aerator/restrictor, toilet displacement device, toilet leak detection tablets, garden hose nozzle, hose washers, and hose repair kits. Retrofit kits included instructions on the proper installation and benefits of the low-flow devices. In addition, each of the kits included printed materials promoting interior and exterior conservation practices. Retrofit programs may have also included a water survey as described above or toilet replacement with ultra-low flush toilets (ULFT).

Conservative estimates of interior water savings achieved due to retrofit with only the showerhead and faucet restrictor for single-family and multi-family homes ranges from approximately 48 to 114 gallons per day (gpd) per housing unit. Significant additional savings

may have been generated due to fixture leakage reduction and installation of toilet dams or replacement. Installation of retrofit fixtures in older single-family homes tends to produce more savings, while newer multi-family homes tend to produce less savings per housing unit.

The District directs interested customers to other agencies that implement this program.

Implementation Schedule

Program Status: Ongoing education.

Budgetary Schedule:

None.

9.2.3 DMM 3: System Water Audits, Leak Detection, and Repair

RCSD has conducted monthly water audits, leak detection, and repair on their distribution system since 1997. Because RCSD is located in an earthquake zone, it has permanently incorporated the system water audit and leak detection, and meter calibration (production and customer meters) programs into its utility operations, on a three-year rotation schedule. On average, RCSD water department crews spend about 35 days surveying approximately 100 miles of main and laterals per year. The RCSD also participates in the NACWA-sponsored annual valve exercise program, established in 1991, to ensure that interconnections with adjacent utilities work.

No major line replacements were necessary from 2010 to 2015.

Implementation Schedule

Program Start: January 1997

Program Status: Ongoing. Effectiveness of this DMM is measured through the reduction in number of leaks detected and unaccounted for water losses in comparison to past years. RCSD utilizes an annual review of the data records to confirm that the unaccounted for water losses stay under 6 percent.

Budgetary Schedule:

Budget for this DMM is included as part of the routine maintenance.

9.2.4 DMM 4: Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections

RCSD is fully metered for all customer sectors including single-family residential; commercial, institutional, industrial (CII); and government facilities. Additionally, CII customers are metered with separate landscape meters.

RCSD has recently started replacing all meters with smart meters that will allow them to collect data on usage and possible leaks. This meter replacement program will be completed by the end of 2017.

To measure the method's effectiveness, RCSD will utilize a database system. Each dwelling may be analyzed to evaluate the change in water usage based on historic water use and current water use. If necessary, the program can be refined.

Commodity Rate is discussed in Section 9.2.11, DMM 11.

Implementation Schedule:

Program Status: Ongoing. Started in 1990.

Budgetary Schedule:

To be determined. Currently, budgeted as normal part of system operation.

9.2.5 DMM 5: Large Landscape Conservation Programs and Incentives

In 1992, motivated by the drought, RCSD established a landscape ordinance. It has since been amended to include fire-escaping guidelines and to conform to California Water Code Section 65590 et seq. (AB 325).

The District partners with the Antelope Valley Water Partners. The actions in which the District participates are:

- Smart landscape workshop – annual
- Website – provide funding

Implementation Schedule:

Program Ongoing.

Budgetary Schedule:

\$2,000

9.2.6 DMM 6: High-Efficiency Washing Machine Rebate Programs

High-efficiency washing machines use about 50 percent less water than conventional machines; using only 20 to 30 gallons of water per load, compared to 40 to 45 gallons for conventional top-loading washers. The estimated annual savings for a typical household is about 5,000 gallons per year.

RCSD does not currently have its own residential rebate program. However, customers in the RCSD's water service area may be eligible for rebates from either the area's electric utility or gas utility. Water and energy savings vary with the new models, however, mean water savings of approximately 14 gallons per household per day would be expected. High efficiency models cost from \$600 to \$1,100 (compared to \$300 to \$700 for conventional units) which may reduce the rate of participation. Examples of customers that would derive maximum benefit from this program include multi-family residential units and laundromats with multiple washing machines per location.

The Los Angeles Department of Water and Power (LADWP), in partnership with member agencies offer rebates which normally range between \$85 and \$150. Rebates are based on the projected combined water and energy savings. Examples of other agencies which have cosponsored programs with Metropolitan Water District of Southern California (MWD) include Kern County, LADWP, San Diego County Water Authority, and Southern California Edison (SCE) (<http://www.sce.com/residential/rebates-savings/appliance/appliance.htm>).

Implementation Schedule:

LADWP Program: Ongoing

SCE Program: Ongoing

Kern County Program: Ongoing

RCSD Program: Not implemented

Budgetary Schedule:

Not applicable.

9.2.7 DMM 7: Public Information Programs

RCSD promotes water conservation and other resource efficiencies in coordination with the Association of California Water Agencies (ACWA) and the energy utilities. It also distributes public information through bill inserts, brochures, community speakers, paid advertising, and many special events every year. Special events include the William Ketchum Armed Forces Day Parade, an annual water conservation fair, and Antelope Valley College smart landscape workshop with Antelope Valley Water Partners.

Implementation Schedule:

Program Ongoing. RCSD will track the commentary regarding the information provided.

Budgetary Schedule:

\$2,000

9.2.8 DMM 8: School Education Programs

RCSD is in the process of establishing an education program to encourage students of all ages to review household water use and implement conservation measures at home.

Implementation Schedule:

Program is in process of implementation. To measure the effectiveness of this DMM, RCSD will survey the households of students for changes in water use.

Budgetary Schedule:

The proposed annual budget for this DMM is \$1,500 for labor, expense, and materials.

9.2.9 DMM 9: Conservation Programs for Commercial, Industrial and Institutional Accounts

RCSD developed a billing insert that included water survey information. This insert along with the October 1994 DWR publication Water Efficiency Guide for Business Managers and Facility Engineers was distributed. Staff also completed a program to identify CII customers by Standard Industrial Classification (SIC) codes.

Implementation Schedule:

Discontinued.

Budgetary Schedule:

None.

9.2.10 DMM 10: Wholesale Agency Programs

RCSD is not a wholesale agency and thus this DMM is not applicable.

9.2.11 DMM 11: Conservation Pricing

Proposition 218 amended the California Constitution by adding articles XIII C (“Article XIII C”) and XIII D (“Article XIII D”), which affect the ability of special districts and other local governments to levy and collect existing and future taxes, assessments, and property-related fees

and charges. The *Capistrano Taxpayers Assn., Inc. v. City of San Juan Capistrano*, 235 Cal. App. 4th 1493, strictly forbids the use of tiered rates for the purposes of changing behavior for conservation.

While RCSD has adopted a tiered commodity rate in its 2016 rates, it is directly related to the increase of demand and the cost of purchasing SWP water over restricted water rights.

9.2.12 DMM 12: Water Conservation Coordinator

As of 2010, RCSD retains a designated part-time water conservation coordinator. Due to budgetary restrictions, this position was discontinued.

Implementation Schedule:

Discontinued.

Budgetary Schedule:

None.

9.2.13 DMM 13: Water Waste Prohibitions

RCSD has enacted a Water Conservation Ordinance. Enforcement includes educate customers, issue warnings and citations for violations. See Appendix Q for the Water Conservation Ordinance and information on regulations, restrictions and enforcement. As a method to measure efficiency, RCSD will monitor the number of annual violations.

Implementation Schedule:

Program Ongoing

Budgetary Schedule:

No budget. Implemented as part of normal operations.

9.2.14 DMM 14: Residential Ultra-Low Flush Toilet Replacement Programs

The District does not have its own program under this DMM. The District redirects interested customers to programs implemented by other agencies that serve the Antelope Valley.

Implementation Schedule:

Program Ongoing

Budgetary Schedule:

None.

9.3 Summary of Conservation

Through the implementation of the existing DMMs, the District has achieved the interim target goal for 2015 and the overall target for 2020 as required in SB X7-7. In part, conservation efforts by RCSD customers are likely a part of the extended drought that occurred during this period. The District will continue to monitor per capita day consumption to ensure that the District remains below the 2020 target consumption.

Section 10.0. Plan Adoption, Submittal, and Implementation

10.1 Inclusion of All 2015 Data

All data for the calendar year of 2015 is included in this report.

10.2 Notice of Public Hearing

All local cities, counties, water and planning agencies and community organizations were notified by mail of the availability of the plan for public inspection and the time and location of the public hearing.

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
City of Palmdale	<input checked="" type="checkbox"/>	<input type="checkbox"/>
City of Lancaster	<input checked="" type="checkbox"/>	<input type="checkbox"/>
County Name	60 Day Notice	Notice of Public Hearing
Los Angeles County	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kern County	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NOTES:		

10.3 Public Hearing and Adoption

RCSD sought a wide range of involvement in the development of this plan, including direct public involvement. Public participation in the development of the UWMP was encouraged.

A 60-day notification was release prior to the hearing. Drafts of the plan were made available for public inspection at the District office on June 26, 2016 before the public hearing which began prior to the Board Meeting on July 14, 2016. The draft of the plan was also made available on the District’s website beginning on July 1, 2016.

Comments on the draft were collected and incorporated into the plan.

10.4 Plan Submittal

This UWMP will be submitted to DWR electronically.

10.5 Public Availability

After being submitted to DWR, the plan will be available to the public.